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ABSTRACT

Although all countries face shortages of professional personnel, the problem is especially critical for the developing nations, who face the drain of high-level manpower to developed nations. This study of the migration of manpower from the Philippines to the United States identifies the major factors in this exodus, improves prediction techniques, and analyzes ways to minimize emigration through improved educational programs. Out of a population of 9,613 college-educated Filipinos who studied in the United States between 1960 and 1965, 753 names were chosen through disproportionate stratified sampling of the medical and nonmedical segments of the population. After further division of the sample into those who returned to the Philippines and those who remained in the United States, usable questionnaires were returned by 66 migrants and 188 nonmigrants. The report concludes from the data that migration is highly related to attitudes toward the home country, as well as personal characteristics such as age and sex. Consequently, a short-run program to reduce emigration should involve government support of education for individuals carefully screened for attitudes and personality traits. In the long run, however, education and the climate for research must be improved so that talent is adequately utilized. (BH)

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by Josefina R. Cortes

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FOREWORD

by E. G. Cohen

The problem of "brain drain" is one of great concern for many countries of the world. Josefina Cortés has, through this survey, illuminated the motivations and conditions surrounding the decision "not to return" home after study in the U.S. Her use of sociology, such as Stauffer's theory of intervening opportunitites, has made her study applicable, not only to her native Philippines, but to other countries as well.

The results are filled with strong interconnected relationships, many with direct policy implications. An example is the emerging picture of the government-supported, mid-career person as an excellent investment because he will most certainly bring his knowledge back home to appy it immediately. Miss Cortés, herself, is an outstanding example of this phenomenon.

This research was highly demanding, requiring technical skills, a thorough knowledge of the practical problem, knowledge of sociology, and the sheer burden of its execution. Only a person of Miss Cortés intellectual calibre, drive and dedication to her country could have carried it out.

ACKNOWLEDGMENTS

A study of this nature would not have been possible without the help of several persons and agencies. Chief among the persons to whom the author is greatly indebted are Dr. Eugene Staley and Dr. Elizabeth G. Cohen. Dr. Staley, serving as the initial Principal Investigator, provided invaluable guidance and encouragement in planning and conceptualizing this study. Succeeding Dr. Staley, Dr. Cohen gave her unstinted support and guidance at every stage of the research and provided the intellectual stimulation that helped the researcher develop the theoretical scheme of this study. Her critical comments on the initial chapters of this manuscript contributed substantially to its final version.

The author also owes a special debt of gratitude to Dr. Robert B. Textor, who, gave helpful suggestions during the course of the research and finally in the absence of Dr. Cohen, gave considerable moral support during the period of writing the final version of the manuscript. Dr. Textor also bore the burden of critically reading the manuscript in its entirety and made valuable suggestions for its improvement.

The author also acknowledges with profound gratitude the assistance of two other, namely: Dr. Godwin Chu, formerly of the Institute for Communications Research, Stanford University, for helping the author develop the research questionnaire and research design for this study, and Dr. Richard T. Johnson, for his generosity with his time and knowledge, who made detailed criticism of the early drafts of the manuscript and valuable suggestions pertaining to the statistical aspects of this study.

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For all friends and colleagues who gave various kinds of help at different stages of the research, the author records her sincere appreciation. Mention is especially made of Dr. Cristina Parel, Director, Statistical Center, University of the Philippines, for helpful suggestions regarding the sampling of the population of the study; Miss Jovita C. Duremedes, National Service Development Board, Manila, who was not only a constant source of help throughout the period of this study, but who supervised and actually performed the laborious task of obtaining the names of the persons who composed the population of this study from the Department of Foreign Affairs, Manila; Miss Remedios Encisa, Miss Cecilia Gotia, and Miss Herminia Silos, all of whom helped in pretesting the research questionnaire on a group of Filipino immigrants residing in San Francisco and New York: Mrs. Teresita Ybiernas and Mr. Jimmy Ong, for assisting in coding the questionnaires; Mr. Gerry Gil, for helpful suggestions regarding coding and data analysis; Dr. Robert F. Arnove, for helping the author learn the intricacies of computer analysis and for reading portions of the first draft of the manuscript and offering suggestions for improvement; Mrs. Betty Herring for editorial assistance; and Mrs. Famah Andrew for typing the manuscript.

Last but not least, the author wishes to thank all the subjects of this study. Without their cooperation, the study could never have been undertaken.

All mistakes and shortcomings of this study are the author's alone.

Josefina R. Cortés

Stanford University
June 1969

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CHAPTER I

INTRODUCTION

The shortage of high-level and specialized manpower is a problem facing all countries today and there is every indication, in view of the giant strides being made in science and technology, that the need for trained manpower will continue to increase. This shortage is observed to be most acute in underdeveloped countries, where large talent reserves seldom exist and where opportunities for advanced and modern education and training are, by and large, non-existent or exist under trying conditions.

Compounding this situation is the increasing emigration of skilled and professional personnel from these impoverished areas to the more affluent regions of the world. Referred to as "brain drain," this phenomenon is causing both developing and developed countries much concern.[1] The daily newspapers, popular magazines, scientific journals, and international periodicals have published article after article on the subject. Conferences and workshops have been held with greater frequency in the last three years to discuss possible ways and means of containing the tide of intellectual migration. The U.S. Department of State in June 1966 held a conference during which government officials, representatives from private organizations and international agencies, and scholars discussed the issues surrounding the so-called "brain drain" phenomenon.

The United Nations, the Pan American Health Organization, the Office for Economic Cooperation and Development, and Education and World Affairs have all begun to study and assess the nature and magnitude of the "brain drain" problem.

---

[1] "Brain drain" is a term invented by the British to describe their losses in recent years of professional people -- mainly scientists, engineers, and physicians -- through emigration. Now it is widely used to refer to the immigration of highly trained professionals from underdeveloped or developing countries to the advanced countries of the world. In this paper, "brain drain" and "intellectual migration" will be used to mean the outflow of highly trained professionals from underdeveloped countries to the more developed countries.

This growing concern about the flow of trained talent and skills from developing countries may be attributed largely to the emerging concept of education as an investment in "human capital." As economist John C. Shearer cogently puts it:

> Human resources often constitute the key to development. They are the only active factor of production. Other factors of production produce value only as human resources activate them. Natural resources and capital become meaningful as factors of production only as human resources organize, combine and control their uses (62, p. 2).

This view of education as investment in "human capital" has given rise to a lively debate on the social and economic consequences of the international migration of high-level persons. Two schools of thought relative to this problem have developed -- the group espousing the "cosmopolitan model" and another group advocating the "nationalist model."

Representing the "cosmopolitan group" is H. G. Grubel, who argues that whether a country is better or worse off when some of its highly skilled citizens migrate or emigrate depends on how one defines the problem. He claims that nationals who improve themselves wherever they go would seem to work toward a positive view of the "brain drain" problem. He further argues that migration of talent and skills from developing countries can be a "gain" rather than a "drain" on the part of these countries. For example, he suggests that a study be made of the beneficial effects resulting from a person's leaving his country, citing as a case in point the changes in a country's social institutions "after illustrious individuals have left their shores." He also mentions the loss of income individuals incur by not getting paid for their marginal product, which according to Grubel, is not uncommon in developing countries. In addition, he cites the loss to one country and the whole world of a brilliant scientist "... because the chances are absolutely nil at this time and in the foreseeable future," that his country can produce the research equipment needed by him to achieve the results which are possible given the proper environment and equipment (36, 35, and 68, p. 15).

On the other hand, other writers like Oteiza advocating the "nationalist model" stress that:

> High level education ... is a form of capital embodied in the person who has received this education.... Such capital produces through his participation in the labor force a return to him as well as a return to the society in which he is living. From a social point of view, by

> migrating, that same person will be depriving the society of his last residence from the social return on the investment in education previously made on him (1, p. 125).
>
> In a similar vein, W. Adams points out:
>
> ... human capital is a requisite for development. Certain minimum levels of human capital are indispensable to a country's development. If the emigration of human capital causes the nation to fall below this minimum, the consequence is not, as the cosmopolitan model suggests merely to raise the marginal productivity of the human capital remaining, but to jeopardize the growth potential of all combined resources in the economy.
>
> To the extent that top-grade professional manpower is expensive to produce, and to the extent that it usually embodies substantial doses of public investment, its loss through migration represents a 'gift' from one country to another (1, p. 5).

This study does not intend to take sides in the current debate on the subject of the negative or positive effects of the "brain drain" phenomenon of this decade. However, it is necessary to present the issues involved mainly to stress the need for a study designed to understand and know the forces that give rise to this phenomenon, and thus, perhaps find ways and means of dealing with it dispassionately and effectively. For while both schools of thought have each a seemingly valid set of contentions, they both lack the empirical basis for making such generalized statements with respect to the countries concerned. More needs to be known in terms of the number, quality, utilization and opportunities for highly trained persons within the developing countries before any generalized statement on the "gain" or "loss" resulting from this movement can be made.

Background of the Problem

The last two decades have witnessed a phenomenal increase in the number of students from underdeveloped countries enrolled in universities in the U.S.A. and other advanced countries. Existing data show that nine-tenths of these students from underdeveloped countries go to West European countries, to the United States of America, to Japan, and to the U.S.S.R. (32). These students have gone for study abroad either at their own expense or their family's or under various sponsorships -- by their home government or by some other governments, most likely the government of the host country, or through privately sponsored scholarships.

It is observed, however, that some of these students, after their study or training abroad, do not return to their home country, or if they do return, they later leave to live and work abroad permanently or for an indefinite period.

The Twenty-Third Report of the Committee on Government Operations contains the following statements (81, p. 7):

> Of 7,913 scientists, engineers and physicians entering the U.S. from developing countries in 1967, 3,772 or 48% were people who originally entered the U.S.A. as students.
>
> Ex-student scientific immigrants are not only a large proportion of total scientific immigration from developing countries. For some countries, they form a sizable proportion of their entire student population in the sciences and engineering at U.S. colleges and universities, e.g., China had in 1967, 4,299 students enrolled in science and engineering at U.S. educational institutions but lost through student immigration 1,137, some 26% of its enrollment; India had 5,146 but lost 1,074 or 21%; Korea, Pakistan, Israel and Philippines, lost respectively 15%, 13%, 11% and 10% of their enrollment in U.S. institutions.

Thus, Dedijer so rightly noted that in many underdeveloped countries, the migration of talent and skills takes the form of potential scientific talent represented by the non-return of students they send abroad.

Student non-return is, of course, just one form of scientific immigration from developing countries. The immigration of scientists, engineers and physicians from developing countries has been substantially increasing. This increase is closely associated with the 1962 liberalization of the U.S. immigration law and with the further liberalization of the same law in 1965. Prior to 1962, although scientists and other highly qualified professionals were accorded high preference, their immigration was allowed within quota limits set for their countries.

In 1962, scientific and other professional applicants who had previously filed and qualified for immigration but who were debarred from entry by national quotas were allowed to enter without regard to national quota limitations. Another liberalization of the Immigration Law in 1965 provided for gradual elimination, over a 5-year period, of national quotas and the use of new non-discriminatory but numerically limited preference classes of immigrants from anywhere in the eastern hemisphere.

Among the new classes is a category of 17,000 persons reserved for scientists and other qualified professionals and their dependents, known as the "third preference" class. During the 3-year transition period, qualified third preference applicants coming from countries with small national quotas can be given quota slots unused by countries with large national quotas, until the 17,000 per year third preference class cutoff point is reached. This resulted in a significant increase in scientific immigration in 1966 and 1967 (81).

The table below shows the increase in immigration into the U.S.A. of scientists, engineers, physicians and other professionals from developing countries:

TABLE I.1

Immigration into the U.S. of Scientists, Engineers, and Physicians, fiscal years 1956 and 1962-66

Fiscal Year	Total all countries		Developed countries		Developing countries	
	Number	% of Total	Number	% of Total	Number	% of Total
1956	5,373	100.0	3,604	67.1	1,769	32.9
1962	5,956	100.0	3,573	60.0	2,383	40.0
1963	7,896	100.0	4,534	57.4	3,362	42.6
1964	7,810	100.0	4,607	59.0	3,203	41.0
1965	7,198	100.0	4,548	63.2	2,650	36.8
1966	6,534	100.0	5,144	54.0	4,390	46.0

Source: U.S. Congress 79, 1967, p. 5. Developed countries include the European countries, Canada, Japan, South Africa, Australia and New Zealand.

The above figures may substantially understate the actual share from developing countries since Canada, a developed country is a way station for many persons from less developed countries who ultimately migrate to the U.S.A. Japan, also a developed country, is becoming a "parking place" for students from Southeast Asia, who eventually migrate to the U.S.A.

The U.S. Immigration and Naturalization service reports that the number of professional, technical and kindred workers from the Philippines admitted as immigrants to the U.S.A. increased from 312 in 1965 to 1,041 in 1966 -- an almost threefold increase. This number may seem small and negligible; but it would be erroneous to assess the implication of the

outflow of skilled professional manpower in terms of cold statistics. As the U.S. House of Representatives Committee on Government Operations cautions:

> ... it would be a mistake to state the loss to developing countries in terms of numbers of persons or some estimate of the monetary cost of their education and training. The loss of even a few exceptional individuals in a poor country can mean an important development venture not undertaken, the denial of high quality instruction and training of the future leaders of development, and the diminution of the energy, drive and vision without which there is no development (79, p. 8).

Assessing and understanding the importance and consequences of the migration of talent and skills from underdeveloped countries or from "source countries" to developed countries or "sink" countries, to borrow terms from Dedijer (32), requires a knowledge of the major aspects of this phenomenon, namely: (1) volume and direction of this particular migration stream, (2) characteristics, types and levels of education and training of the persons that constitute this migration stream, (3) their reasons for emigration, (4) consequences of the migration of talent and skills on their home and host countries, and (5) what can be done to regulate this migration stream in order to minimize its ill effects and to maximize its beneficial effects.

Review of Literature

Studies on the movement of persons crossing national and international boundaries, or migration, in general, are numerous but those that deal with the international flow of professionals, scientists, and engineers are scanty and of recent vintage.

Musgrove (19) has aptly called this group of migrants the "migratory elite." The migratory behavior of high-level persons, which Dedijer claims to be as old as science itself, has received surprisingly little attention from either sociologists or historians. It is only in recent years that this phenomenon has merited the interest and concern of social scientists. In fact, only a few exploratory studies and case studies on the magnitude, causes and consequences of intellectual migration, popularly known as "brain drain" have been undertaken.

There are existing studies and programs aimed at supplying information regarding the magnitude and trends of the present migration of trained talent and skills. For instance, the U.S. Immigration Office has started keeping detailed data on immigrants according to their

skills and training. The U.S. National Science Foundation has likewise begun keeping a directory of scientists and engineers of foreign origin in the U.S.A. However, there is a dearth, if not a complete lack, of depth studies on the characteristics of persons that constitute this migration stream. Badly needed and of crucial importance are studies on the possible causes and conditions that give rise to this phenomenon.

Surely, there are a number of factors propounded and widely believed as major causes of this phenomenon. Among them and considered as the cause of intellectual and skilled migration is the material "pull" or "attraction" of the rich countries. However, Stevan Dedijer, who conducted an exploratory survey of this phenomenon in sixty countries observed:

> Up to now, no Government that I know has produced complete and detailed statistics on the migration and immigration of scientists.... At present, I do not know of any social scientist in any country having determined the cultural causation of the migration of scientists (32, pp. 965-966).

Exploratory studies so far available on the causes of the migration of trained talent and skills seem to point out that there are factors other than the material pull of the rich countries that have a more decisive effect on a highly trained or highly educated person's decision to leave his home country (99; 58; 98).

> Much migration from less developed countries arises not from poverty itself, just as the pull to the United States is not entirely the opportunity to earn more money.... The heart of the problem is that both poverty and migration stem from basic problems that are most difficult to deal with and that can be dealt with only by the countries themselves (Kidd, 1967).

Two studies assessing the magnitude of the brain drain in specific countries are: (1) Report of the Committee on the Emigration of Scientists from the United Kingdom, by the Royal Society of London (74) and (2) Migration of Health Personnel, Scientists, and Engineers from Latin America, by Pan American Health Organization (73). Both these studies were limited to determining the volume of the flow of a particular group of high-level persons to the U.S.A. and to exploring the possible causes of migration among these persons. The Royal Society study deals mainly with the flow of Ph.D.'s from U.K. to North America from 1952 through 1964.

Exploratory studies on the causes of intellectual migration, by which a "sample" of the migrants themselves were involved by means of a questionnaire, were done by James Wilson (99) and by Gutierrez and Riquelme (58).

Wilson's study, which was descriptive and exploratory, was designed to identify the British scientists who have emigrated to North America, as reported by the Royal Society of London, and to find out from them why they had left the U.K., when they left, what sort of work they were doing, how satisfied they were with their original decision to migrate, and what their intentions were concerning the future. Based on a sample of this "hard core" of science migrants, Wilson reported two major findings (99, pp. 419-420):

> It is the factor of 'personality' at work among the migrant group ... which clearly emerges as the most dynamic of the factors or influences operating toward emigration in this migrant sample ... a mixture of behaviour, attitudes, traits and values in relation to migration, emerges so forcefully from the findings ...
>
> The push factors put forward as a tentative explanation by many and tested by this investigation are inadequate to explain the contemporary migration of British professionals ...

Considering these two major results of his study, Wilson suggested that any future empirical inquiries into migration of professionals should concentrate their efforts in this direction and that a comparative study with migrant professionals and matched non-migrant controls be undertaken.

Like Wilson's research, the Gutierrez and Riquelme study is a case study, also exploratory in nature, of the flow of professionals from Chile to the United States. Taking a sample of Chilean emigrants concentrated in some states of the United States, like California, Washington, D.C., Michigan and New York, the study attempted to arrive at some descriptive statistics of the emigrants and to find clues to their motives for emigration. But as the report laments, the study is limited by the fact that some areas of concentration like Massachusetts and Ohio were not included. And this could be significant in terms of qualitative evaluation.

The Gutierrez and Riquelme study found that 36 percent of the group studied were medical personnel and engineers, followed in size by economists, administrators and technical personnel, and a small number of lawyers and architects. The study further disclosed that the migrants' primary motivation for emigrating was professional progress and advancement, followed by the lure of higher pay and greater professional recognition in the U.S.A. It also found that almost all of the migrants aspire to return to Chile, and only 10 percent want to remain permanently in the U.S.A. One factor that seems to merit further investigation is that those who study abroad seem to show that such study abroad is one factor influencing emigration.

In an attempt to assess the volume and direction of this decade's brain drain, Stevan Dedijer sent questionnaires to and obtained materials from about four hundred scientists, science administrators and persons concerned with education and science policies in sixty countries. On the basis of the information gathered Dedijer postulated that

> ... the migration of scientists has certain preferred directions: from less developed to the more developed countries, from countries developing slowly to countries developing rapidly, from small countries with developed science, and, most important, from countries with less developed science and education policies to those with more developed ones ... (32, p. 966).

Dedijer further observed that the migration of scientists is determined in the first instance by the general social, political, and economic and scientific conditions of their own country pushing them out and similar forces from other countries pulling them in (33).

There have been some studies done recently on the "non-returning" foreign students, but these are few and fragmentary. Many of them are exploratory studies of the factors associated with a student's intention not to return to his home country. One such study was done at Stanford University in the spring of 1966 (Chu, 31).

Chu reported:

> Consistently, we found the students more likely to return if their studying abroad was home-sponsored, if they had been offered jobs from home, and if they would be given due recognition ... It seems that support from the home culture is more important than support from the host culture in determining whether a student will go back or stay. This can be inferred from the finding that none of the students under home sponsorship intended to remain in the United States ...
>
> ... the data supported the hypotheses that expatriation is positively related to the rejection of own cultural values and acceptance of host cultural values, negatively related to the amount of social support from the home culture, and positively related to the amount of social support from the host culture. On the basis of inferential analysis, it is suggested that social support from the home culture plays a predominant role in determining whether a student will become an expatriate ... (31, p. 20).

While Chu's study identified some factors that have considerable influence on student expatriation (expatriation is conceptually defined as rejection of one's own cultural membership and seeking of a new cultural membership), the study falls short of providing explanation as to why certain factors have a stronger influence than others on a person's becoming an expatriate. For instance, what would have been the result if the factor of social support was held constant, and the factor of "sanction to return or no sanction to return" to home country was introduced as a test factor?

On the whole, however, Chu's study is valuable in pointing out the possibilities of identifying predictors for student return or non-return to his home country, which may also be tested as predictors for the migration or non-migration of high-level or highly educated persons.

Another study similar to Chu's is Myers' doctoral research on Peruvian students in U.S. universities (98). This study explored the relationship between study abroad and migration, with Peruvian male students enrolled in the U.S. during 1965-66 as subjects. Reporting on his initial findings, Myers revealed:

> My study seems to support the contention ... that there is little problem of non-return among sponsored students ... A larger percentage of the non-returnees and undecided individuals is found among the lower middle class students ... (in 68, p. 38).

Myers, in addition to the factor of social support underscored by Chu, brought out another factor -- social class, as a factor related to migration. It will be noted that social class as a condition associated with migration has been suggested by Caplow (4) in his theoretical view of migration.

The studies reviewed above are the only researches dealing directly with the "brain drain" phenomenon that this writer has encountered so far. There are other ongoing researches dealing with the same problem but no report on their findings is as yet available.[2]

Insofar as the Philippines is concerned, there is no known completed research on the subject. There have been, in recent months several articles written on the subject of "brain drain" in the Philippines, but none is based on a scientific inquiry into the problem. Most of

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[2] In late 1967 Education and World Affairs, a U.S. organization, launched a two-year study on the economic costs of the movement of talent from developing countries. Dr. F. Lynch is conducting a study on the magnitude of the "brain drain" in the Philippines.

them are speculative articles on the causes of the exodus of physicians and nurses from the Philippines to the U.S.A.; others are incomplete statistical reports on the magnitude of the outflow of professionals from the Philippines done by the Bureau of Census and Statistics, Department of Labor of the Philippines.

Review of Related Research

The few studies dealing directly with "brain drain" reviewed earlier identified some of the most important factors that this research set out to investigate. A great number of the variables singled out and woven into the major hypotheses advanced in this study were drawn from these researches. But the theoretical framework on which this study was based was derived and constructed from the following review of researches indirectly related to the "brain drain" phenomenon. In other words the theoretical scheme which guided this research was inspired by existing theories of migration in general and by selected researches in sociology and social psychology that were found to have some bearing on the migration of high-level persons.

The migration of talent and skills may be viewed as one dimension of occupational mobility, referred to as spatial or ecological mobility. Spatial mobility, according to Caplow (4, p. 88) includes two quite different things: mobility involved in migration, and mobility involved in the performance of work which is not attached to a single work site.

Caplow observed that the tide of migration tends to flow in the direction of economic opportunity. This observation is in accord with Samuel Stouffer's notion of migration and economic opportunity. Stouffer developed what is known as the Law of Intervening Opportunities. The law, in brief, states that "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities" (24, p. 71). In other words, the number of people moving between two places will be larger the more opportunities there are in the target area and the fewer opportunities there are interposed between the target area and the place of origin.

Caplow, however, noted that although Stouffer's formula has been tested and appears to conform reasonably well to observed facts, it is limited by the fact that the measurement of the concept of "opportunities" is not easy. He pointed out that to measure "opportunities," it is necessary to take into account basic attitudes and values. This view is expanded by Cohen who suggests that scientific mobility should be conceived in terms of the actor's viewpoint regarding the alternative of migrating or not migrating. Cohen believes that there seem to be at

least two components of the decision process related to migration: (1) the objective attractiveness of the points of destination, and (2) the actor's perception of that "pull" in relation to the "push" from the point of origination (97, p. 13).

However, Fishburn (9) underscored that in a decision-making situation where the individual is faced with the problem of weighing the alternatives for action, the individual tends to act and react in the context of both his "internal" and "external" worlds. A person's internal world, Fishburn points out, is a world of motivations, interpretations and judgments.

Like Fishburn, Musgrove (19) stressed that peoples' drives and motives alone cannot account for the migratory movement of professionals and highly skilled persons. A consideration of the social conditions or external world that give rise to a person's decision to migrate is equally important. Drawing heavily from Habwach's Population and Society (1960), Musgrove maintained that modern intercontinental migratory movements have the essential characteristics of "social facts" -- such as a local surplus of highly-educated people and the development of the industrial and social structure elsewhere which would appropriately absorb and reward them (19, p. 8).

Reenforcing Musgrove's view is Dedijer's observation that a scientist's decision to emigrate or stay in his home is the consequence of attractions and repulsions acting on an individual from two professional and social environments. It is a choice, Dedijer thinks, made through the free will of the individual between two sets of alternatives, which include such factors as salary, material standard of living, status in the scientific community, opportunity to advance professionally, degree of development of the scientific branch the scientist has been trained or wants to work in, and a number of factors lumped under the general heading of sociopolitical factors (33).

The preceding discussion spotlights the importance of measuring "opportunities" in terms of both the person's perceptions and expectations and the existing social, economic and other external conditions in the points of origin and destination.

Caplow further theorized that the people most likely to migrate are those whose occupational status is least dependent upon their ties in the local community, who can do so with minimum inconvenience, who have universally saleable skills, and no immovable property. Along this same line of thinking, Ladinsky (48) in a study of geographic mobility among professional workers in the U.S.A., using the 1960 Census, found that occupations with highest migration rates are salaried professions and those with the lowest migration rates are the self-employed workers, such as lawyers and architects. A detailed analysis

of Ladinsky's findings showed that professions that require heavy investments in capital equipment and close cultivation of clientele have low migration rates; salaried professions with low ratios of managers to managed, and decentralized work units have high migration rates; salaried professions with unstandardized work conditions, no state licensing, and strong occupational communication networks have high long-distance migration rates. Occupation or profession as a factor of migration was brought out clearly by this study (48).

Musgrove's theoretical and descriptive study of the United Kingdom's "migratory elite" stresses rather strongly the notion of dislodgement from one's society of origin as a factor related to intellectual migration. The process of dislodgement, Musgrove claims, can be attributed to certain types of education and other social experiences persons have had.

> The grammar schools and universities have a determined non-local orientation; they have proved efficient allies of the social revolution which has produced the migratory elite turning their students to non-local interests and careers ...
>
> However numerous and lucrative the appointments in an overseas economy, emigration will take place only if there are enough young men of suitable qualifications inclined to take them. They are likely to be more inclined if competition is keener here for the job they would like and if they have had social and educational experiences which weaken their attachment to their social groups [underscoring added] ... keen competition at home and apparently easier advancement abroad have undoubtedly been important circumstances promoting emigration ... (19, pp. 14-18).

The notion of dislodgement through education that eventually leads to emigration finds support in some of the initial investigations of this decade's brain drain phenomenon. Myers reported that "there seem to be a few cases of people training themselves out of the Peruvian market (in 68, p. 38). W. J. Gibbons, reporting to the U.S. House of Representatives' Subcommittee on Government Operations his tentative findings regarding the non-return of foreign students said:

> ... the further the student goes on the graduate level, particularly on the doctoral level, the more apt he is to think in terms of migrating to the U.S. or to the same developed area ... they are forced into patterns of education which do not necessarily take into account the conditions in their countries of origin ... this is especially true in the case of the scientific disciplines ... (80, p. 4).

Objectives of this Study

Much has been said or is being said regarding the possible causes of the exodus of Filipino professionals to the U.S.A. but no study has as yet been made to find out from the persons concerned why they migrate. Neither is there a study of why equally trained Filipino professionals choose not to emigrate. This study was designed to do both.

This study was conceived mainly to identify the "who's" and specify the factors associated with the exodus of high-level persons from the Philippines to the U.S.A. In sum, its objectives are:

1. To identify and specify the major factors associated with the emigration of high-level persons from the Philippines to the U.S.A.;

2. To gain insights into the problem of prediction of migration among the highly trained; and

3. To throw light on ways in which education or training at home and abroad may help minimize the outflow of trained talent and skills from the Philippines.

In addition to its main objectives, this study aims to explore the motives, goals and values of persons that migrate or do not migrate, with the view to understanding the underlying predispositions of the two groups. It is also hoped that this study may have both scientific and pragmatic value.

In its search for explanations for the emigration of persons of specialized training and skills from their home country -- in this case the Philippines -- the study may yield some basis for sound policy decisions regarding the training, conservation and utilization of specialized manpower in the Philippines. Moreover, it may point out some aspects of education and training that need rechannelling or redirection in order to stem or reduce the outflow of trained talent from the country. For as Charles Kidd points out:

> ... development of adequate supply of scientists, engineers and technicians is a basic problem in the application of science and technology in developing areas. Migration poses a threat to the growth of science and technology in developing areas.... The emigration of substantial numbers of scientists from less developed countries is in a sense a national catastrophe. Not only are the talents of the individuals as scientists lost, but the nucleus of people who can alone build an indigenous base for science is dissipated... (70, p. 21).

Expressing the same view but in a more general sense, Harbison and Myers emphasized:

> The goals of modern societies ... are political, cultural, as well as economic. Human resource development is a necessary condition for achieving all of them. A country needs educated political leaders, lawyers, and judges, trained engineers, doctors, managers, artists, craftsmen, and journalists to spur its development. If a country is unable to develop its human resources, it cannot develop much else, whether it be a modern political and social structure, a sense of national unity, or higher standards of material welfare (10, p. 13).

Scope of this Study

The term "high-level," "highly trained" or "highly educated" persons, as used in this study, denotes all individuals who have obtained training in a specific discipline or area beyond the baccalaureate level. This study deals with this group of Filipino nationals who have undergone advanced or specialized training in various branches of the medical and non-medical sciences in the U.S.A.

The rationale for limiting this study to the outflow of U.S.-educated or trained persons from the Philippines to the U.S.A. was prompted by the following assumptions:

1. that a large percentage of Filipinos who go into studies or training beyond the first degree obtain such training in U.S. institutions;

2. that the flow of highly trained persons from the Philippines is largely in the direction of the U.S.A; and

3. that a close look at this overwhelmingly U.S.-bound stream of trained talent may disclose some of the crucial factors related to the so-called "brain drain" phenomenon.

While the above assumptions are not the major hypotheses of this study, the search for empirical facts was partly guided by these conjectures.

CHAPTER II

THE PROBLEM

The current and general concern over the brain drain phenomenon highlights the need for empirical or scientific studies on practically all aspects of this controversial issue. As earlier mentioned, more needs to be known of the dimension, the basic factors contributing to the movement of trained talent across national boundaries and the quality and characteristics of the persons that constitute this migration stream.

> Few subjects in the field of international education and cultural affairs have been so widely discussed on the basis of so little hard factual data as the so-called brain drain ... Much of the discussion has been in highly political and emotional terms. However, the issues posed by the international migration of talent are subtle and delicate and the considerations involved are complex ... (W. Marvel, President, Education and World Affairs. EWA Press Release, January 9, 1967).

Conceptual Scheme and Research Hypotheses

The literature reviewed yielded valuable insights into the causes of the migration of high-level persons. Two factors that seem to stand out worthy of closer investigation are: (1) the notion of dislodgement from, in contrast to anchorage in one's country of origin (Musgrove, 19), and (2) the notion of opportunities as perceived and evaluated by the individual migrant himself in terms of his own goals and expectations (Caplow, 4 and Cohen, 97).

The literature likewise disclosed the crucial need for looking at the brain drain phenomenon from the viewpoints of two comparable groups of migrants and non-migrants from the same country, in order to ascertain what differences exist, if any, between the migrating and non-migrating professionals (Wilson, 99).

Some of the questions that may be raised on the basis of the review of existing literature and related research on the brain drain are:

1. How can one tell whether a person is dislodged from his own society or, on the other hand, how can one tell whether a person is anchored to his society of origin? Are there ways of knowing how and when dislodgement from one's society takes place?

2. What characteristics or attributes -- demographic, psychological and other characteristics -- tend to be associated with professionals who migrate from their home country? Are these characteristics and traits shared by the migratory elite of all cultures or do cross-cultural differences exist?

Wilson, for instance found that, by and large, British migrants appear to be ambitious, in the sense that they demonstrate "a high level of aspiration, a high need for achievement ... they are ambitious for experience of all kinds, and at the core of things, they seem most to want an opportunity to use their talents" (99, p. 433).

Moreover, Wilson also found that the British migrant scientists are a young group -- their median age range is 31-35. However, he also noted that among those who indicated plans for returning to the United Kingdom those more likely to signify intention of returning are the younger (under 30) emigrants.

It must be noted at this point that Wilson's study is highly biased in the direction of the high academic preparation of his subjects. He studied mostly Ph.D. holders and former members of the Royal Society of London. Thus, it would be interesting to see how his findings apply to a sample of professionals with a wider spread of academic training from another country, like the Philippines.

3. To what extent do the psychological and situational aspects of both "anchorage" and "opportunities" influence intellectual migration? Which situational factors or "social facts" as underscored by Durkheim, Musgrove and Dedijer are highly associated with migration? What sorts of manipulation of social conditions would seem workable in order to slow down intellectual migration? Chu found "social support" from home country as a factor positively related to repatriation or return of foreign students to their home country (31). On the basis of what the migrants themselves identify as "push" forces from their home country, are there other ways of stemming the tide of intellectual migration through the manipulation of social or institutional factors?

4. What factors enter into a person's concept of "opportunities?" If values are the criteria for determining a person's choice of action, what are these and which of them considerably influence, say, a Filipino's decision to emigrate or not to emigrate? How similar or different are his values from those who do not migrate and from those of migrants of comparable qualification from other countries?

The Gutierrez and Riquelme study, as well as the Pan American Health Organization's study, points out that among the most important motives for emigration are the desire for professional progress or advancement and higher pay in the U.S.A. It is, however, intriguing to consider that although differential opportunities decidedly in favor of the U.S.A. do exist, from observation, it can be assumed that there exists in every developing country a group of equally qualified and motivated professionals who perceive greater opportunities for advancement right in their own country. What can explain the difference between this group and their colleagues who tend to perceive opportunities elsewhere?

5. Last but not least, is it possible to gather enough evidence to show that anchorage and perceived opportunities in the home country are related to the migration of high-level persons? On the basis of the evidence gathered, would it be possible to make statements regarding the direction of this relationship? If so, which indicators of anchorage and opportunities seem most predictive of migration?

These are some of the most important questions for which this research hopes to find answers, or at least gain insights.

On the basis of the review of the literature on the subject of "brain drain" and since this study will be confined to the outflow of professionals from the Philippines to the U.S.A., this research submits two major hypotheses:

Hypothesis 1: Migrants and non-migrants differ in their anchorage in the Philippines: Migrants will tend to exhibit weak or low anchorage in the Philippines compared to non-migrants.

Hypothesis 2: Migrants and non-migrants differ in their valuations of opportunities in the Philippines: Migrants will tend to register more unfavorable or negative valuations of opportunities in the Philippines, while non-migrants will tend to show favorable or positive valuations of opportunities in that country.

On the basis of these hypotheses, it is predicted that persons who are low on anchorage in the home country will be more prone to emigrate. Likewise, it is predicted that persons whose valuations of opportunities in the home country are negative or unfavorable will be more apt to emigrate.

The research hypotheses relate two major variables to emigration, namely: (1) anchorage in the home country and (2) relative valuations of opportunities in the home country and country of destination or host country, which in this study is the U.S.A.

The Variables and their Operational Definitions

The dependent variable is the emigration or non-emigration act. The term "emigration" or "migration" from the Philippines refers to a cluster or series of decisions and behavior deliberately made by a person in order to establish residence and engage in an occupation entirely independent of and separate from the functions or business of the Philippine government or its agencies in another country, permanently or for a prolonged or indefinite period of time. All acts leading to the person's attainment of such a type of occupation outside his home country, change of citizenship and change of residence from the Philippines to another country are indicators of emigration or migration. Non-emigration is none of these decisions or actions. Rather, it is the maintenance of one's residence and continuation of the practice of one's profession or occupation in his home country even after having been abroad for study or training.

The independent variables are: (1) the person's anchorage in his home country and (2) his valuations of opportunities in the home country and country of destination.

"Anchorage" is the opposite of "dislodgement," which Musgrove defined[1] as the loosening of ties that attach a person to his society of origin. Anchorage is conceptually defined as the psychological, social and other ties or attachments a person has to his home country -- the strength and quality of attachments to persons, objects, ideas, practices, beliefs and value systems, institutions or whatever pertaining to the home country.

Anchorage may be viewed as a relational and a property term. As a relational term, it refers to the social, economic, professional or occupational ties and attitudes that attach a person to his home country. As a property term, it refers to certain personal characteristics and circumstances that reinforce a person's attachment to society. A person's anchorage in his home country is weak when his value orientation (cultural ties), reference groups (social ties), vested interests (economic ties and professional interests) have shifted away from his home country, in which case he will eventually develop greater anchorage in the direction of such a shift (derived from Caplow, 4; Beijer et al., 2, Dubois, 5 and Eisenstadt, 8).

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[1] The writer preferred to use "anchorage" instead of "dislodgement" because of its positive connotation. The term "anchorage" was derived from an article by C. Tausky and R. Dubin, "Career Anchorage: Managerial Mobility Motivations," American Sociological Review (October 5, 1965), pp. 725-735.

Anchorage has quantitative (non-attitudinal) and qualitative (attitudinal) aspects. The quantitative aspects of anchorage include a person's demographic characteristics such as age, marital status, socio-economic background, socioeconomic status, his educational qualifications and attainment, the number and extent of his social, economic, professional, political and other ties that attach him to his home country and other situational circumstances pertaining to his person that may give rise to his close identification with his home country.

The qualitative aspects of anchorage refer to the attitudes -- affective, cognitive and conative -- that a person has toward people, objects, practices, institutions and values pertaining to or associated with his home country. The qualitative aspects of anchorage may, therefore, be measured in terms of the person's feelings, beliefs, preferences, tastes, loyalties and behavioral tendencies.

The indicators of a person's anchorage in his home country are:

a. size and extent of influence of family, friends, colleagues and other persons or groups of persons in the home country on the person's actions;

b. demographic characteristics such as age, marital status, place of origin in the home country, etc;

c. possession of immovable property and other kinds of investments or vested interests in the home country (Caplow, 4).

d. relevance of education and training to the home country's conditions (Musgrove, 19; Gibbons, in 80).

e. socioeconomic background and socioeconomic status in the home country (Caplow, 4; Myers, 98).

f. universally saleable or marketable skills and knowledge (Caplow, 14; Ladinsky, 48).

g. extent and nature of involvement or participation in social, economic, professional or occupational, political and other activities in the home country. This can be measured by membership in organizations and degree of participation in these organizations in the home country (Musgrove, 19).

h. sense of identification or community with Philippine cultural values, institutions, national problems, etc., measured in terms of the persons'

attitudes -- feelings, beliefs, and expressed preferences, tastes, loyalties and choices (Chu, 31; Musgrove, 19).

i. source of support as student or trainee abroad (Chu, 31).

The term "opportunities" refers to what Durkheim called "social facts" -- the economic, social, professional, political, and other situations "that give rise to ways of acting, thinking, and feeling external to the individual but capable of exercising on the individual an external constraint" (Durkheim, 6).

However, "each person has an individual image of the world or society he is in, because his image of the world is a product not only of his physiological structure and his physical and social environment, but also of his wants and goals" (Krech, et al., p. 17, 13). Thus, a person's valuations of opportunities will depend not only upon the social facts that surround him but also upon which of these social facts match or satisfy his wants, goals and values.

"Valuation of opportunities" in the home country refers to the process of matching the societal or situational conditions found in the home country with one's professional, social, economic and other goals and expectations. A person's "valuation of opportunities" in his home country may be favorable or unfavorable, positive or negative. This can be determined by the following indicators:

a. the person's perceptions, which consist of his knowledge, beliefs, ideas about existing social, economic, occupational or professional openings and conditions in his home country and country of destination;

b. the person's expectations, which include the kinds of jobs the person desires and the kinds of jobs he thinks he will get, considering the conditions and practices in his home country and country of destination; the kinds of jobs he is willing to accept, the working conditions he is willing to settle for, the level of recognition and income he knows he can get and is willing to accept, etc;

c. the person's overall assessment of his life chances -- social, economic and professional both in the home country and country of destination and his choice of either one;

d. the person's expressed satisfaction-dissatisfaction, agreement-disagreement about evaluation statements regarding existing opportunities in the home country and country of destination; and

e. the kinds of jobs the person has had prior to and after training or study abroad and the level of his salary or income before and after U.S. study;

f. other facts and information pertaining to the person's professional or occupational experiences in the home country and country of destination.

When a person's perceptions of opportunities in his home country match or exceed his valuations of opportunities in the home country, his valuation of opportunities may be said to be positive or favorable (based on Stouffer's Law of Intervening Opportunities, 24; Caplow's notion of opportunities, 4; Dedijer, 33; and Cohen's concept of "push-pull" forces, 97).

In addition to the major hypotheses stated above, this study also aims to explore to what extent high-level persons from the Philippines who studied or trained in the U.S.A. and who have since stayed on or emigrated to that country or have returned to the Philippines, compare or differ in motivational orientations; and if these two groups do differ in motivational orientations, to find out if their motivational orientations form a pattern or suggest a migrant typology and a non-migrant typology. This part of the study was intended to be merely exploratory. With this in mind, a third set of variables -- motivational orientations -- were investigated in relation to the emigration or non-emigration of U.S.-educated or trained Filipinos.

Why individuals choose one action or reject alternative actions -- in this case to emigrate or not to emigrate -- is a question involving both underlying predispositions and precipitating events. The first two variables -- anchorage and opportunities -- largely pertain to precipitating events, while motivations would serve as clues to the person's underlying predispositions.

An analysis of a person's motivations or direction of action would include his wants -- defined as the driving forces in the individual that impel him to action, and his goals -- defined as the end result, immediate or remote, which the individual seeks. Wants and goals together determine a person's motivational orientations. Since wants and goals are interdependent, no attempt was made to separate them; instead, both were considered as components of a person's motivational orientations. A person's motivational orientations may, therefore, be determined by the following indices: the search for, selection and attention to a specific object or class of objects; persistence in a consistent

course of action until a specific object or class of objects is reached; the manifestation of satisfaction or dissatisfaction when there is failure to achieve a specific goal (adapted from Krech, et al., (13). A person's wants and goals may be inferred from the direction of his interests and efforts and his criteria for his actions or behavior. His motivational orientations may then be inferred from the following indicators:

a. his reasons for studying or training in the U.S.A.;

b. his goals and aspirations, expressed in terms of his opinions about what he considers important goals, values and concerns in life;

c. his criteria for what he thinks is highly satisfactory with respect to his work and working conditions;

d. his reasons for emigrating or not emigrating; and

e. other expressed beliefs or feelings about sources of professional satisfaction or dissatisfaction.

To summarize, three major sets of variables were postulated as correlates of intellectual migration: (1) a person's anchorage in the home country, (2) his relative valuations of opportunities in the home country and country of destination, and (3) his motivational orientations.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Two comparable groups of U.S.-educated or trained Filipino emigrants and non-emigrants were the subjects of this study. The units of analysis were the migrant group and non-migrant group studied in terms of their motivational orientations, anchorage in the Philippines and relative valuation of opportunities in that country and the U.S.A.

The basic research instrument used was a self-administered paper and pencil questionnaire mailed to the subjects. On the basis of the responses to the questionnaire, the two groups -- migrants and non-migrants, were compared in terms of the three major variables postulated as correlates of migration. Variables found to be significantly associated with the migrants were singled out for further analyses for the purpose of explaining or interpreting the relationship and isolating those that appear to be powerful predictors of migration.

The Population and Selection of Subjects

The subjects for this study were drawn from the population of college-educated Filipinos with at least a baccalaureate degree or its equivalent who were issued passports for the purpose of study or training in the U.S.A. by the Department of Foreign Affairs, Republic of the Philippines, during the period from 1960 through 1965, a period of six consecutive years.

The names of the persons belonging to this population were secured from the files of the Passport Office, Department of Foreign Affairs, Manila, by researchers of the National Science Development Board, Philippines.[1] In addition to their names, the following relevant data

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[1]This was done after every effort at obtaining names and addresses of Filipino professionals who migrated to the U.S.A. from U.S. government agencies and other agencies proved futile. Upon the request of the writer, who is on official leave from the National Science Development Board, that office obtained the necessary clearance from the government agencies concerned and assigned two full-time researchers to obtain the data from the Department of Foreign Affairs, Republic of the Philippines, Manila.

about each person in the population were obtained from their respective files: (1) home address in the Philippines, (2) parents' or guardians' address and names, (3) business address or place of employment at the time of application for a passport, (4) degree obtained in the Philippines, (5) name and address of university or training agency in the U.S.A., if indicated, and (6) proposed field of study or training in the U.S.A.

Excluded from the population of this study were persons who belonged to the following categories:

a. members of or aspirants to religious orders;

b. military personnel or members of the Armed Forces of the Philippines;

c. persons going only for observation trips or tours of U.S.A.; and

d. persons who were to study or train in the U.S.A. for less than six months.

Persons belonging to (a) and (b) were excluded on the assumption that these persons are, by and large, not free to choose between emigrating from or returning to the Philippines. Their action is subject to the decision of a superior authority of the organization to which they belong. Persons belonging to (c) and (d) were excluded since length of sojourn in the U.S.A. is a factor hypothesized in this study to have some influence on a person's tendency to remain in the host country.

After refining the list on the basis of the specified criteria, a total of 9,613 persons remained and was considered the population of interest.

This number (9,613) excludes those belonging to the categories specified above, as well as those who, during the same period, 1960 through 1965, studied or trained in countries outside the U.S.A. It is interesting to note at this point that the group that went to other countries for study or training during the period covered by this study numbered no more than 289 persons or approximately three percent of the total population of Filipinos who were reported to have applied for passports to the U.S.A. for the purpose of study or training in that country during the same period.

The population stratified into ten subgroups and ordered by size and proportion to the total population is as follows:

TABLE III.1

The Population by Specialties

Field or Profession:	Number	Percent of Total
1. nurses	4,800	49.94
2. physicians & surgeons	1,897	19.73
3. humanities	716	7.45
4. medical technologists	633	6.58
5. education & related fields	408	4.25
6. life sciences	309	3.21
7. other medical fields (dentists, pharmacist, dietition)	274	2.85
8. physical sciences	228	2.39
9. engineering & related technology	211	2.19
10. social sciences	137	1.43
TOTAL	9,613	100.0

Note that the nurses alone constitute almost 50 percent of the total population of Filipinos who went to the U.S.A. for further training during the six-year period covered by this study. This group is followed by another medical group -- physicians and surgeons, constituting 19.73 percent of the total population. In sum, the medical professions which include nurses, physicians and surgeons, medical technologists, dentists, pharmacists, dietitians and related professions represent 79.10 percent of the total population.

Of the remaining professions, the largest group is represented by people in the humanities. This group includes people in literature, arts, languages, architecture, philosophy, business, law, commerce and similar disciplines. Next to this group are people in education and related fields, like guidance and counselling, school administration and supervision and library science. The life sciences, physical sciences, engineering and social sciences represent no more than an average of two percent each of the total population.

Below is a summary of the breakdown of the professions or disciplines by two major strata, namely: (1) medical professions or fields, and (2) non-medical professions or fields, ordered by size and proportion[2] of their respective subpopulation and of the total population:

Major Strata & Specific Field	Size & Proportion of Subpopulation	Percent of Total Population
1. MEDICAL	7,604	79.10
nurses	4,800	49.94
physicians & surgeons	1,897	19.73
medical technologists	633	6.58
other medical fields	274	2.85
2. NON-MEDICAL	2,009	20.90
humanities	716	7.45
education & related fields	408	4.25
life sciences	309	3.21
physical sciences	228	2.37
engineering & related technologists	211	2.19
social sciences	137	1.43
TOTAL	9,613	100.0

a. Sample Design

Sampling the population was guided by the following requirements: (1) to identify and locate the subjects for this study, who are to be a subsample of those of the population who are presently residing in the U.S.A. and another subsample of those who have returned to the Philippines and are currently residing in that country. The former are referred to in this study as the migrants and the latter are called the non-migrants; (2) to ensure that these two subsamples constitute a wide range of professions so as to explore and isolate, if possible, the various factors that may explain the migration of as many kinds and levels of trained talent, and (3) to make sure that the professions, like natural sciences, engineering and managerial, of which underdeveloped countries are believed to be in crucial need, are amply represented.

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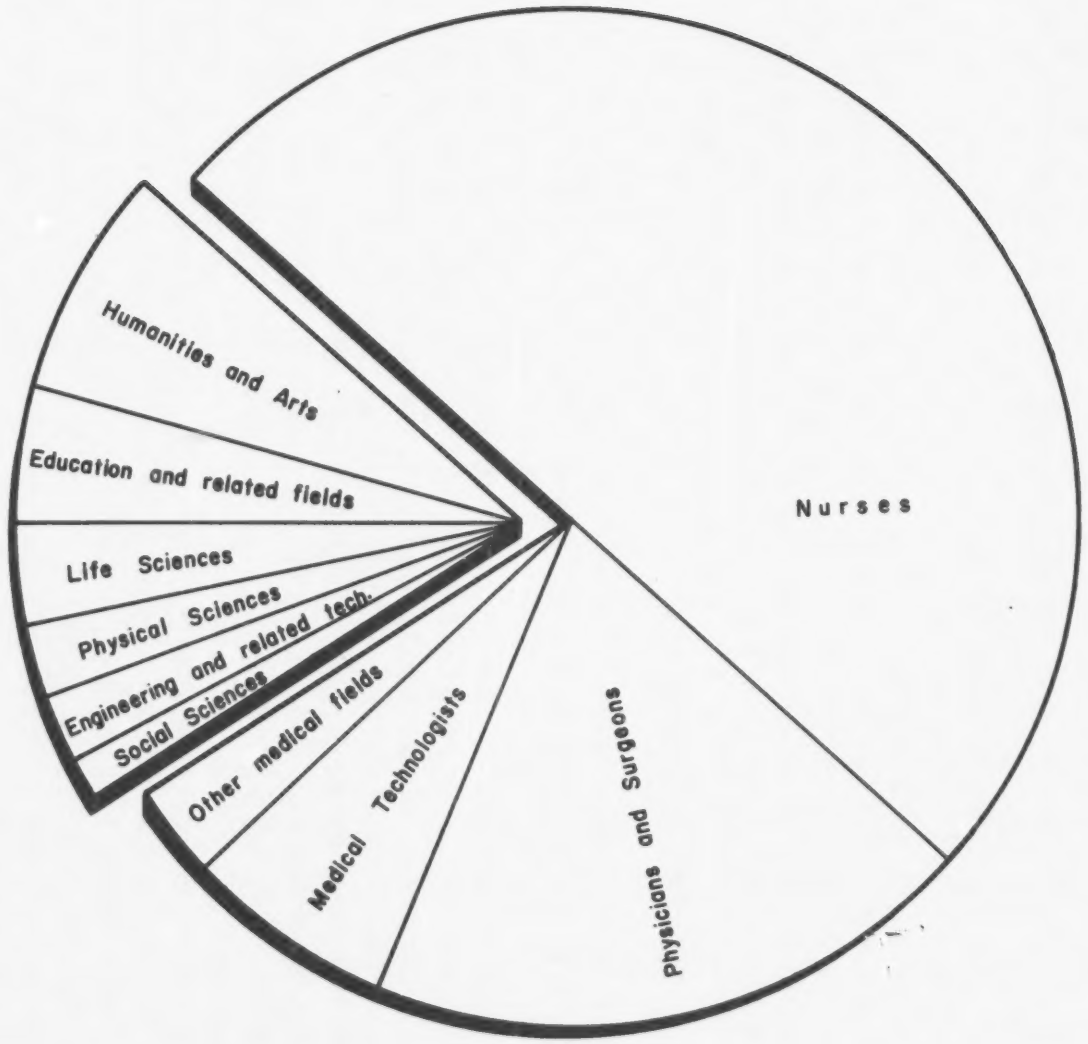
[2]Figure 3.1 is a graphic illustration of the population by specialty.

NON-MEDICAL
20.90 %



MEDICAL
79.10 %

Figure 3.1 The Population by Field and Sub-specialties.

With these requirements in mind and taking note of the overwhelming proportion of the medical professions of the total population, the sample design followed three major steps (refer to Figure 3.2).

The first step was to stratify the population into two major strata: (1) medical professions and (2) non-medical professions.

The medical professions, as indicated earlier, include four subgroups, namely: nurses, physicians and surgeons, medical technologists, and other medical professions like dentistry, pharmacy, optometry, etc.

The non-medical professions include six subgroups, namely: humanities, education and related fields, life sciences, physical sciences, engineering and related technology, and social sciences.[3] Considering that almost 80 percent of the total population represents the medical professions, a sampling fraction of two percent for the medical professions and 30 percent for the non-medical professions were allocated to ensure that the more critical professions are adequately represented in the study. The sample size from the non-medical professions numbers 601 and 152 from the medical professions.

Starting, therefore, with 753 names drawn by disproportionate stratified sampling of the two major strata of the population of 9,613 individuals, the next step was to find out where these 753 individuals are now. The task of locating the current whereabouts of these people was by no means easy. All possible avenues for locating these persons were utilized -- letters, phone calls and visits to the homes of the persons concerned were made whenever and wherever possible. A large majority of the persons whose home addresses according to their passport files are within Manila and its suburbs were contacted by phone or personal visits. About 25 percent were located by this method. The remaining 75 percent were located by mail. The letter inquiring about the current addresses of the persons concerned, with a brief explanation of the purpose of the inquiry was signed by the Chairman of the National Science Development Board. For the purpose of following up the letters sent out to provinces and cities outside Manila, the assistance of the regional science promotion offices of the National Science Development Board was enlisted.

The results of the effort to locate 753 individuals, from which number the subjects of this study were to be finally identified and picked, are shown in Table III.2.

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[3]This classification of the professions or specialties is an adaptation from the classification of specialties developed by the U.S. National Science Foundation. See The National Register of Scientific Personnel, published by the National Science Foundation, Washington, D.C., 1960.

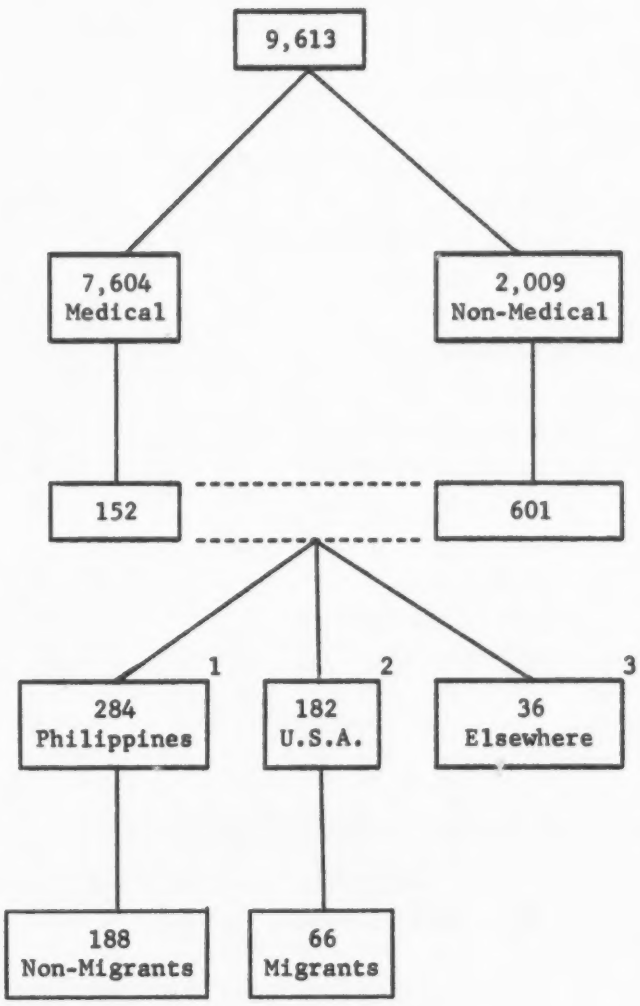
Total population of interest:
Filipinos with college degrees issued passports for advanced studies or training in the U.S.A., 1960-1965.

Step 1:
The population was stratified into two major fields.

Step 2:
Variable sampling of the two major fields:
2% of medical
30% of non-medical

Step 3:
The present whereabouts of the persons in the two subsamples were ascertained and located persons were grouped according to where they are now.

Total N of subjects for this study = 254



[1]Of this number, only 262 were sent questionnaires because 22 were located too late; 188 responded.

[2]Of this number, only 162 were sent questionnaires because addresses of 20 were incomplete. Of the number that were sent the questionnaires, 90 responded but 21 were excluded because they are still pursuing studies in the U.S.A. and three were returned too late for processing.

[3]This group was excluded from this study.

FIGURE 3.2

Diagrammatic Illustration of the Selection of Subjects

TABLE III.2

Number of Persons Located by Specialty and their Current Whereabouts

Specialty	Philippines	U.S.A.	Elsewhere	Total
MEDICAL	22	39	15	76
physicians & surgeons	4	20	2	26
nurses	14	15	12	41
medical technology & others	4	4	1	9
NON-MEDICAL	262	143	21	426
humanities	107[a]	40	8	155
social sciences	21	14	2	37
physical sciences	18	21	1	40
education & related fields	60	30	3	93
life sciences	35[b]	23	6	64
engineering	21	15	1	37
TOTALS	284	182	36	502

[a]Includes one issued passport but unable to leave for U.S., and one deceased.

[b]Includes one issued passport but did not leave for U.S.

Of the five hundred and two persons whose current addresses were established and verified, 284 or 55.7 percent are presently in the Philippines, 182 or 36.3 percent are in the U.S.A. and 36 or 7.1 percent are in countries other than the U.S.A. Of the group who are outside the U.S.A., 24 or 66.6 percent are in Canada and the rest are scattered in other countries like Germany, Australia, England, Japan, Colombia, Laos, Cambodia and Saigon.

b. The Subjects

This study deals only with the group that is presently in the Philippines and the group that is in the U.S.A. The Philippine group as shown in the preceding page is composed of 22 persons in the medical

professions and 262 in the non-medical professions. The U.S. group is composed of 39 persons belonging to the medical professions and 143 in the non-medical professions.

The original plan was to draw by random sampling a fraction from the Philippine group and from the U.S. group, roughly 25 percent from each group, and these two subsamples were to constitute the subjects for this study. Since the size of each group was found to be rather small, it was decided to include all the persons in both groups in the study. It turned out, however, that only 262 individuals from the Philippine group were sent the research questionnaire. The reasons for this were that some were located too late for the distribution of the questionnaire in the Philippines, others were not available during the survey because they were either on brief official trips abroad or were engaged in some short summer assignments outside their regular stations, and two were not available for a purely personal reason, i.e., they were on their honeymoon.

Of the U.S. group, only 162 were sent the research questionnaire. A large percentage of those who could not be sent questionnaires (n=20) were those whose addresses were obviously incomplete -- no street name or number or just the name of the city or state in the U.S.A.

Seventy-one percent or 188 questionnaires were completed and returned by the Philippine group, henceforth referred to as the non-migrants. A response of 55.5 percent or a total of 90 questionnaires were returned and completed by the U.S. group. However, 21 questionnaires were filled in by persons who are still enrolled as students in various universities in the U.S., and three were returned too late for processing, so the total number of questionnaires representing the migrants was 66. Therefore, the total N of this study is 254 -- 188 non-migrants and 66 migrants. (Refer to Figures 3.3 and 3.4 for the geographic distribution of the subjects of this study.)

Questionnaire Construction and Design

The questionnaire items were statements and questions collected from or formulated on the basis of the review of existing literature and research related to the problem under investigation, interviews with persons knowledgeable on the subject, conversations with Filipinos who have become permanent residents or citizens of the U.S.A. and written or verbal comments and suggestions by the participants in the pretests of the questionnaire.

The pool of questionnaire items covered questions and statements pertaining to the various indicators of anchorage, opportunities, and

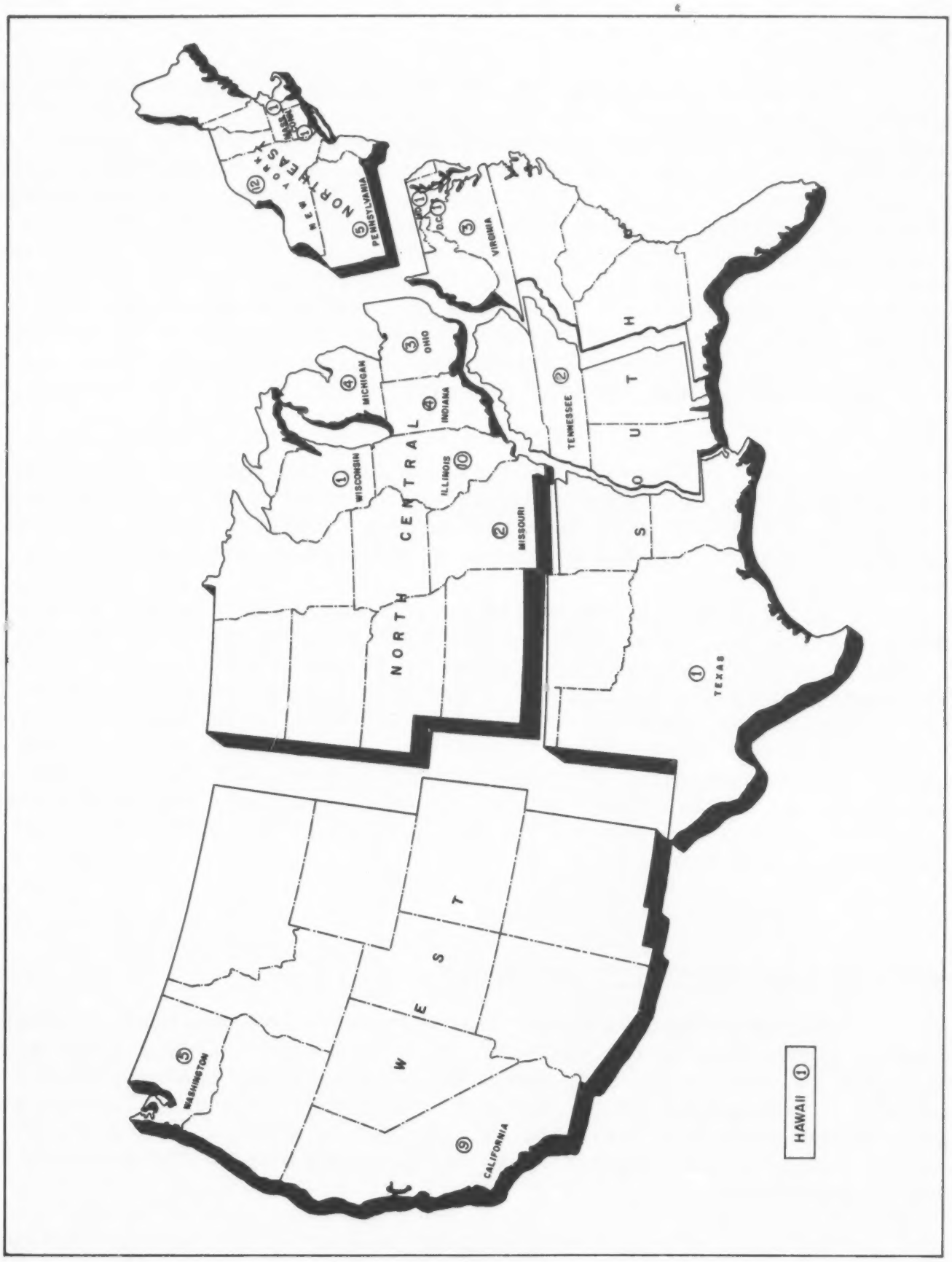


Figure 33. Geographic Distribution of Migrants.

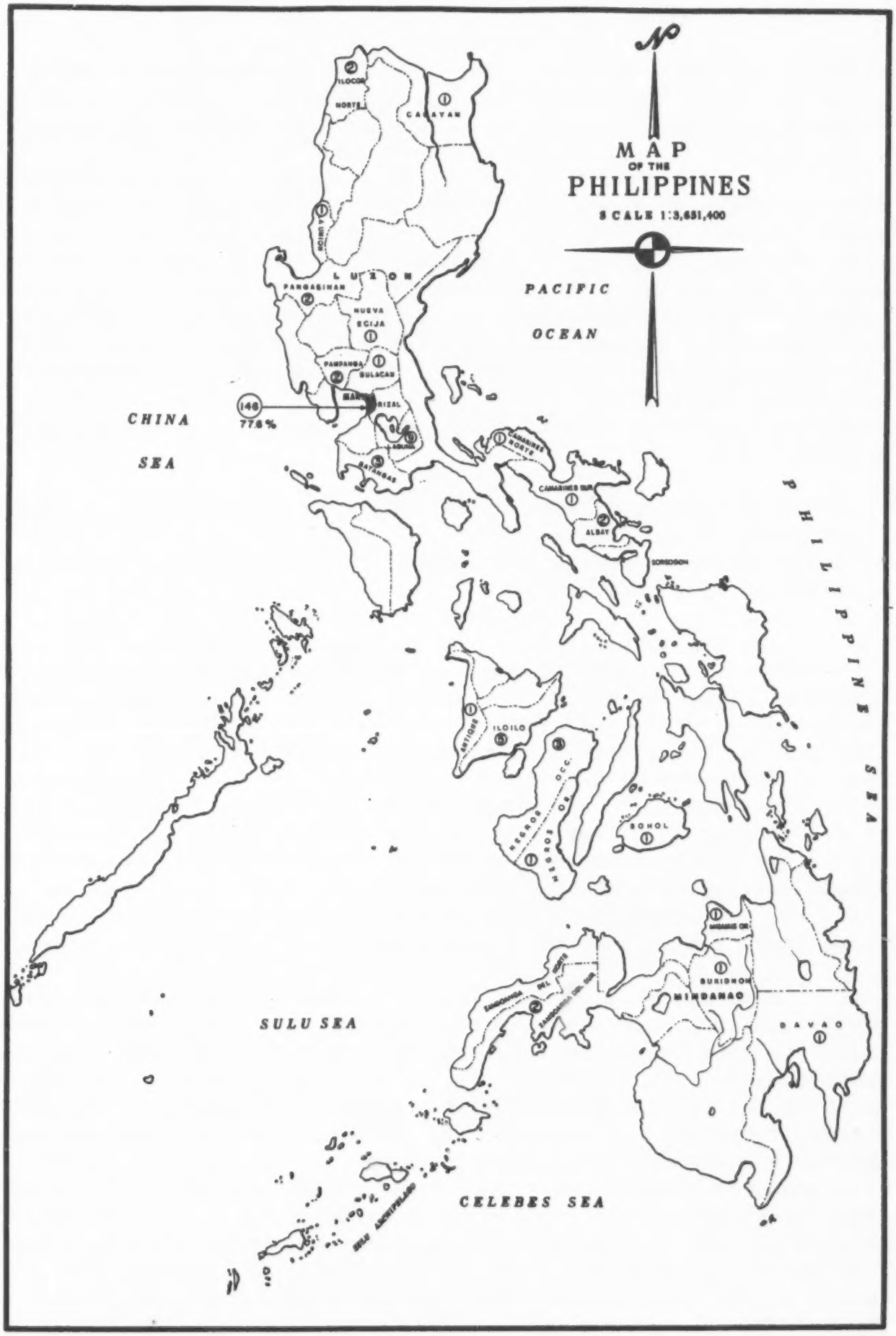


Figure 3.4. Geographic Distribution of Non-migrants.

motivational orientations. These items were formulated as closed questions for which the answers were structured and the respondent was only to check, encircle or provide a tick mark to indicate his answer.

A number of open-ended questions were included to which the subject was asked to supply his answer within a particular frame of reference. In addition, the questionnaire contained attitudinal or evaluative statements and belief statements to which the subject was asked to register his reaction in varying degrees of agreement-disagreement, satisfaction-dissatisfaction, or approval-disapproval. These attitudinal statements were designed to constitute two attitude scales, namely: (1) Anchorage Scale -- intended to measure a person's attitudinal anchorage in the Philippines, and (2) Comparative Opportunity Scale -- designed to gauge a person's valuations of opportunities in both the Philippines and the U.S.A.

The items constituting the two attitude scales were randomly distributed in the questionnaire to obviate "response set" on the part of the respondents and to keep them from guessing what the statements were intended to measure.

The questionnaire was pretested twice. The first pretest was administered to a combined group of Filipino students registered at Stanford University during the Autumn Quarter of 1967 and to recently graduated Filipino students from the same university who were at that time working in offices located within the San Francisco Bay Area. This initial pretest was valuable for many reasons. It pointed out which items needed to be recast, which items were potentially powerful in discriminating between persons who showed some tendencies of remaining in the U.S.A. or returning to the Philippines, and which items seemed totally irrelevant to the variables under investigation. Moreover, the participants in this pretest gave considerable help in identifying items that tended to be ambiguous or to confuse the subject.

However, it was noted that a pretest of the questionnaire on groups comparable to the subjects intended for this study would certainly be more useful in selecting the items that will make up the final questionnaire. Thus, after revising the questionnaire items on the basis of the results of the first pretest -- adding new items, deleting others, recasting and reorganizing the whole questionnaire in order to improve and ensure the proper sequencing of the items, a second pretest was conducted. This time, the questionnaires were distributed to a group of Filipinos who studied or trained in the U.S.A. before 1960 or after 1965, who are now residing and working in San Francisco and New York and to a comparable group of U.S.-educated Filipinos who have returned to the Philippines. Both groups represented a variety of professions. The size of the combined group was fifty persons. Eighty-two percent or 41 persons participated in the second pretest.

The analysis of the results of the second pretest of the questionnaire was concerned mainly with the refinement of the battery of open-ended and structured questions and with checking on the reliability and validity of the attitude statements that were to constitute the two scales, the Anchorage Scale and the Comparative Opportunity Scale.

The Construction of the Anchorage Scale and Comparative Opportunity Scale

Following the procedure for constructing a Likert Scale (Sellitz, et al., 22), the subjects were asked to respond to each attitude statement by choosing one answer from five response categories, such as: strongly agree, agree, uncertain, disagree, and strongly disagree, or similarly worded response categories measuring the degree of affect. For statements unfavorable to the Philippines, the "strongly disagree" response is given the highest score of 5, "disagree" gets the score of 4, "uncertain" is scored 3, "agree" is scored 2, and "strongly agree is scored 1. For statements favorable to the Philippines, "strongly agree" response gets the score of 5, "agree" is scored 4, "uncertain" is scored 3, "disagree" gets the score of 2, and "strongly disagree" is scored 1. In all cases, the response that is most favorable to the Philippines is given the highest score and responses that are highly unfavorable are consistently assigned the lowest score. The total score of each individual on the attitude scale is computed by adding his item scores.

The selection of the items that were finally chosen to constitute the Anchorage Scale and the Comparative Opportunity Scale was done by using the criterion of internal consistency (Edwards, 7; Selltiz, et al., 22). The responses of the 25 percent of the pilot group that scored highest and the 25 percent of the group that scored lowest on the scale were compared. The items that were found to set these two criterion groups apart most clearly were selected or retained for the attitude scale. The discriminatory power of each item was determined by computing the mean of the scores of the highest scorers on each item and the mean of the lowest scorers on the same item and calculating the difference between the means. The items were then ordered according to the size of the difference of the mean scores of the two groups. The items that ranked highest or had a computed difference of 1 or more were retained to constitute the scales.

On the basis of the second pretest, the questionnaire was modified, reordered, shortened, and finally developed into its final form.

The Content and Organization of the Research Questionnaire

Two sets of questionnaires were used: Type 1, for the Philippine respondents or non-migrants, and Type 2, for the U.S. respondents or migrants. (Copies are shown as Appendices A and B.)

Both questionnaires are essentially the same in content and organization, with the exception of items number 25, 62, and 71 in the questionnaire for the non-migrants and the corresponding items number 25, 63, and 72 in the questionnaire for the migrants, which were worded differently to fit the situation of both groups. In addition, the questionnaire for the migrants included two questions which do not appear in the questionnaire for the non-migrants. These refer to questions on the type of visa that the migrants presently hold. With these few exceptions, both questionnaires are basically the same.

The questionnaire in its final form consisted of seventy-two items, requiring at the most one hour to complete. The items pertaining to anchorage numbered thirty-three or approximately 45 percent of the entire questionnaire. These items include eleven attitude statements that make up the Anchorage Scale and a battery of twenty-one open-ended and structured questions pertaining to the sociological or non-attitudinal determinants of anchorage. The eleven Likert type statements composing the Anchorage Scale are the following: (Please refer to Type 2 questionnaire for the item number cited.)

Item #6: Were you eager to return to the Philippines at the end of your U.S. study or training? (Choose one: very much, much, uncertain, somewhat, not at all.)

Item #34: All advantages and disadvantages considered, I would prefer the Filipino family system over all others that I know. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #41: I believe that my U.S. training is/will be wasted in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #48: Do you agree that you have a greater obligation than those who have less education to contribute to your country's development? (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #54: Nepotism and corruption are part and parcel of the Filipino way of life. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #55: There is nothing anyone can do to stop or even minimize nepotism and corruption in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #60: All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #64: The Philippines will remain a poor country unless Filipinos become completely Westernized. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #65: I do not think I can live for a long time in a foreign country away from my family and the way of life I have been used to in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #67: One's loyalty to country ends where loyalty itself and family begins. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

The other items intended to measure a person's anchorage in the Philippines on the basis of the non-attitudinal factors are: (Please refer to Type 2 questionnaire for the item numbers cited.)

Item #1: Measure of saleability of skill and relevance of training to the Philippines.

Item #3: Measure of social support from home country.

Item #4: Duration of stay in the U.S.A. and measure of dislodgement from home country.

Item #7: Reliability check for #6.

Item #10: Indicator of job commitment or job ties in the Philippines during U.S. study.

Items #32-33: Measure of family ties in the Philippines.

Item #38: Reliability check on socioeconomic background.

Item #39: Measure of a person's vested interests in the Philippines.

Item #45: Measure of social ties in the Philippines and also a reliability check on socioeconomic class.

Items #50-53: Measure of involvement in social, civic, professional and other activities in the Philippines and also a measure of the person's sense of commitment to the Philippines before and after U.S. study.

Items #61-70: Demographic characteristics, like age, sex, marital status, citizenship, etc.

The items designed to determine opportunities in the Philippines for the respondent and to gauge the direction of his valuations of opportunities include eleven evaluative statements about existing opportunities in the Philippines and U.S.A. and eleven open-ended and structured questions aimed at eliciting information about the person's occupational or job experiences and achievements, the kinds and levels of jobs the person has had, his salary before and after U.S. study or training and similar situational or personal circumstances that may have an influence on the person's valuations of opportunities in the Philippines.

The measure of "opportunities" constitutes about 35 percent of the entire questionnaire. The items composing the Comparative Opportunity Scale are as follows: (Please refer to Type 2 questionnaire for the item numbers cited.)

Item #5: Suppose you are asked to assess the chances for advancement in the Philippines of a young Filipino who is planning to go into your field of specialization, which of the following would best approximate your answer? (Choose one: very good, good, uncertain, little, very little.)

Item #14: How much did you think then were your chances of getting the kind of job you wanted (referring to your answer to #13) in the Philippines? (Very much, much, didn't know, little, very little.)

Item #15: In your own opinion, would you say that in the long run, a person with your experience and educational qualification will be better off economically in the Philippines than in the U.S.A.? (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #21: A Filipino with your educational qualifications will be better off, in terms of social prestige and status in a foreign country like the U.S.A. than in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #27: A person with your educational qualifications and ability will find it easier to gain professional recognition in the Philippines than in a foreign country like the U.S.A. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #28: Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A. How do you feel about this? (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #30: In this day and age, it is not who you are but what you know that matters in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #31: Getting recognized on one's own merit is something that does not exist in Philippine society. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #40: What is the standard of living generally attained by a person of your educational qualifications in the Philippines? (Well off, above average, uncertain, average, below average.)

Item #57: There's room at the top for any individual who is hard-working and truly competent in his profession in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

Item #59: All things being equal, it is easier for a Filipino to rise to an executive position in the U.S.A. than in the Philippines. (Strongly agree, agree, uncertain, disagree, strongly disagree.)

In addition to the items on the Comparative Opportunity Scale, the questionnaire included a battery of eleven open-ended and structured questions designed to obtain (a) factual data regarding the occupation or professional background of the respondent and (b) evaluative reactions

to statements about situational realities or social facts in the Philippines associated with economic, professional and social advancement. These items are: (See Type 2 questionnaire for the item number cited.)

Items #8 & 9:	Job before U.S. study and employer before U.S. study.
Items #11 & 12:	Time spent getting a job after U.S. study and problems encountered in getting a job, if any.
Item #13:	Kind of job desired after U.S. study.
Items #16 & 17:	Measure of whether job desired was realized.
Item #18:	Salary before and after U.S. study.
Item #19:	Measure of job satisfaction.
Item #58:	Perceived ways of getting ahead in the Philippines.

Items designed to obtain some insight into the subjects' motivational orientation were mostly open-ended questions about what the respondents believed were the reasons U.S.-educated or trained Filipinos preferred to stay in the U.S. or to return to the Philippines, what they considered life's most important goals and values, their reasons for studying or training in the U.S.A., their likes or dislikes about their present job, what they personally experienced as the great sources of frustration of professionals like themselves in the Philippines, and related questions.

The construction of the structured and open-ended questions followed the funnel approach, which starts with a broad open-ended question followed by closed questions on the same subjects but calling for a specific answer. The closed or structured questions were mostly those intended to elicit objective or factual information. Questions, outside the two attitude scales, that called for some kind of an evaluative or affective response from the subjects were constructed in the form of ordinal scales, whereby the answer is ordered according to its importance to the respondent (Oppenheim, 20).

On the whole, the questionnaire focused on the three independent variables believed to have some relation to the migration or non-migration of U.S.-educated or trained Filipinos.

Data Collection and Processing

As earlier mentioned, 262 persons representing the non-migrants were sent the research questionnaire by mail. Of this number, 74 or approximately 27 percent were scattered in the provinces and cities of Luzon, Visayas and Mindanao, while 73 percent were located within Manila and its suburbs.

No written follow-up of the questionnaires sent to the subjects in the Philippines was sent out, although follow-ups by phone were made of those who were within the Manila area and nearby cities. Some follow-up was also made by the Regional Offices of the National Science Development Board located in various cities of Luzon, Visayas and Mindanao, of persons whose addresses were within the reach of these offices. One and a half months after the research questionnaires were sent out, 66.6 per cent had responded and within two months, almost 71 percent of the questionnaires had been completed and returned.[4] At this point, it is important to mention that it takes two to three weeks for mail from Manila to reach the provinces of Luzon, Visayas and Mindanao, and about the same length of time for mail coming from these islands to reach Manila. This explains the delay in the responses from the Philippine respondents.

The 162 persons who were sent the research questionnaire in the U.S. were geographically distributed as follows: 103 or about 64 per cent were in the Eastern states like New York, Massachusetts, Pennsylvania; 30 or 18 percent were in the Northeastern, North Central, Central, South Central states like Illinois, Michigan, Minnesota, Indiana, Ohio, Tennessee, etc.; and 30 or 18 percent were in Western states like California, Washington, Oregon, including Hawaii.

A response of 55.5 percent was received from the U.S. respondents. Those who did not respond included 20 persons who had moved away from their addresses without leaving a forwarding address according to the Post Office notation on the returned questionnaires, two who did not fill in the questionnaires with the explanation that since they did not finish

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[4]The Philippine phase of this research, which began in January 1968, ended on August 25, 1968. This period covered three months of identifying the population for sampling, administering the second pretest of the questionnaire, developing the final questionnaire, determining and verifying the current addresses of the subjects for this study, distributing and collecting the questionnaires from the subjects in the Philippines, and interviewing a small group of the non-migrants for depth study. The U.S. phase of this research started in September 1968.

any academic degree from a U.S. university they felt they were not qualified to participate in the study. This was taken as a refusal to participate since the introductory letter and the questionnaire itself indicated that non-completion of an academic degree did not disqualify a respondent from filling in the questionnaire. Fifty persons or approximately 30 percent of the sample, who presumably received the questionnaire since this was not returned by the Post Office, are considered to have refused to participate in the study. In addition, one person had returned to the Philippines just before the questionnaire was received at his former address, according to a letter received from his friend.

Of the 90 questionnaires completed and received from the U.S. respondents, 57 or 34 percent were returned less than three weeks after the questionnaires were mailed, without any follow-up.[5] A follow-up letter was sent four weeks after mailing the questionnaires, thereby increasing the response to 45 percent. A second follow-up enclosing a copy of the questionnaire was sent three weeks after the first follow-up, resulting in obtaining a response of 54.6 percent around the first week of December. Three more questionnaires arrived too late for inclusion in the processing of data, thus making the total response about 56 percent from the U.S. respondents.

Coding the questionnaires took almost three months, from September to December, 1968. Three persons, including this writer, coded the responses to the questionnaire. Reliability of the codes and the coder's reliability were checked and rechecked until not less than .85 reliability coefficient was obtained. For the responses to the structured questions, which were precoded, a .96 reliability coefficient was obtained. For the coded responses to the open-ended questions the computed reliability coefficient was .87.[6]

The coded data were transferred to IBM cards by the Keypunch Section of the Stanford Computation Center. All statistical analyses and computations made on the data were done via the computer facilities of the same institution.

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[5] The questionnaires were mailed to the U.S. respondents on September 20, 21, & 22, 1968. By the third week of December 55.5 per cent had completed and returned the questionnaire.

[6] The reliability formula used is $R = \frac{2(C_{1,2})}{C_1 + C_2}$, where $C_{1,2}$ refers to number of category assignments both coders agreed on, and $C_1 + C_2$ = total of category assignments made by both coders.

CHAPTER IV

MAJOR FINDINGS

This chapter presents in full detail the analyses performed on the variables that were found to be highly predictive of the migration of trained individuals. These results can be interpreted and explained on the basis of available data, and have significant implications for policy, theory or future research.[1] At the outset of this research, it was hypothesized that migration of high-level persons from the Philippines to the U.S.A. is a function of two factors, namely: (1) a person's anchorage in the Philippines and (2) his relative valuation of opportunities in the Philippines and U.S.A. On the basis of these assumptions, it was predicted that migrants would exhibit lower or weaker ties or attachments to the Philippines compared to the non-migrants and that migrants would be more likely to register unfavorable or negative valuations of opportunities in the Philippines. In addition, it was expected that migrants would differ from non-migrants in terms of certain sociological and personal characteristics that are assumed to have some bearing on their anchorage or lack of it in the Philippines. Furthermore, it was expected that migrants would differ from non-migrants on certain situational circumstances during and after their U.S. study. These circumstances are relevant to their assessment of conditions for advancement in the Philippines; they include occupational or work experiences, salary, kind of job or employer and similar information.

"Anchorage," it will be recalled, is theoretically defined as a person's psychological, social and situational attachments or ties with his home country. The concept of "anchorage" includes a person's emotional and cognitive relationship to his home country as well as certain characteristics of the individual. As a term indicating properties, the individual may be characterized by certain attributes such as: demographic characteristics, socioeconomic background, educational background and qualifications, social and other situational circumstances. As a relational term, anchorage may be determined by a person's beliefs, feelings, loyalties and predispositions about and toward his country.

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[1]This chapter is strictly limited to a straightforward presentation of the major findings. The interpretation and discussion of these findings and their implications can be found in Chapter VII.

Favorable or positive attitudes -- affective and cognitive toward the home country are indicative of a person's anchorage.

The term "valuation of opportunities" is theoretically defined as the process of matching the societal or situational realities obtainable in the home country with one's professional, social, economic and other life goals and expectations. When the perceived opportunities in the home country fall below his expectations, his valuation of opportunities in that country become negative or unfavorable.

Two measures of anchorage in the Philippines were used in this study: an attitude scale referred to as Anchorage Scale designed to determine whether a person's attitudes toward his home country are favorable or unfavorable, positive or negative, and a set of structured and open-ended questions intended to obtain information about the subject's demographic, socioeconomic, educational and other background characteristics defined as indicators of anchorage and assumed to be correlates of migration. Both measures were contained in the research questionnaire.

A person's valuation of opportunities in the home country was determined by means of an attitude scale called the Comparative Opportunity Scale and by a number of items in the questionnaire designed to obtain information about the subject's occupational experiences.

A. The Anchorage Scale (AS) Score as a Predictor of Migration:

Comparison of the AS Scores of the Migrants and Non-Migrants

As discussed earlier, the Anchorage Scale was designed and constructed for the purpose of measuring the strength or weakness of a person's anchorage in the Philippines. The scale is composed of eleven attitudinal statements about the Philippines or about the Philippines in comparison with the U.S.A. to which the subject is to register his degree of agreement-disagreement and similar responses of affect, by choosing one answer from five response categories representing varying degrees of intensity (see Chapter III). Answers most favorable to the Philippines are consistently given the highest score of 5, "undecided" or "uncertain" answers are scored 3 and answers most unfavorable are scored 1. To illustrate --

Item #54: "Nepotism and corruption are part and parcel of the Filipino way of life."

	Assigned Score
Strongly agree	1
Agree	2
Uncertain	3
Disagree	4
Strongly disagree	5

Item #60: "All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice."

	Assigned Score
Strongly agree	5
Agree	4
Uncertain	3
Disagree	2
Strongly disagree	1

The AS score of an individual is the sum of all his scores on each of the eleven items. A high score on the Anchorage Scale would signify a high anchorage in the Philippines; a low score on the same scale would mean low anchorage.

Based on the research hypothesis, the prediction was made that migrants will tend to score low on the Anchorage Scale compared to the non-migrants.

Appendix C shows how the migrants and non-migrants responded to each of the eleven items constituting the Anchorage Scale. Six of the eleven items elicited responses from the two groups that were significantly different. Item #6 asked the subjects whether they were eager to return to the Philippines at the end of their U.S. studies. Of the 116 who responded "very much" to this question only 13 or 11.2 percent are migrants. But of the 28 who responded "not at all" to this question, 60.7 percent are migrants., The difference in proportions is significant beyond the .001 level (X^2 = 51.895, df = 4, Appendix C).

Item #41 asked the subjects to register their degree of agreement or disagreement with the statement: "I believe that my U.S. training is or will be wasted in the Philippines." Six or 35.3 percent of those who strongly agreed with this statement (N = 17) are migrants; 60.0 percent of those whose response was "uncertain" are migrants (N = 25), while only a little over 23 percent of those who disagreed with this statement (N = 121) are migrants (X^2 = 18.923, df = 4, $p < .001$, Appendix C).

To the statement "Nepotism and corruption are part and parcel of the Filipino way of life," of the 41 who disagreed with this statement, only 3 or 7.3 percent are migrants against 25 or 36.2 percent of the 69 who strongly agreed that are migrants. Approximately 85.8 percent of the migrants strongly agreed and agreed with this statement (N = 66) compared to only 68.1 percent (N = 188) of the non-migrants who gave the same response (X^2 = 11.383, df = 4, $p < .05$, Appendix C).

Item #60 refers to the statement, "All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice." Only 16.2 percent of those who strongly agreed with this statement are migrants (N = 80), while 41.9 percent of those who disagreed with this statement are migrants (X^2 = 18.693, df = 4, $p < .001$, Appendix C). The statement, "I do not think I can live for a long time in a foreign country away from my family and the way of life I have been used to in the Philippines," elicited "disagree" and "strongly disagree" responses from 40 or 60.6 percent of the migrants (N = 66). Of the 34 who strongly agreed with this statement, only 2 or 5.9 percent are migrants, while of the 90 who disagreed, 32.2 percent are migrants (X^2 = 15.777, df = 4, $p < .01$, Appendix C).

Three items, #43, #55, and #67 elicited responses in the predicted direction but failed to reach the .05 level of significance. Items #34 and #64 failed to discriminate between the migrants and non-migrants. These items refer to statements about preferring the Filipino family system over all others known to the subject and favoring complete Westernization for the Philippines. Both elicited responses favorable to the Philippines from migrants and non-migrants alike.

The scores of the migrants and non-migrants were computed by adding the score of each person on each of the eleven items. The frequency and percentage distribution for the AS scores of the individuals in both groups are shown in Table 1.[2] A graphic picture of how the two groups scored on the same scale is shown in Figure 4.1. In both, it will be noted that the migrants scored lower than the non-migrants on the Anchorage Scale.

A comparison of the means of the overall scores of the two groups on the Anchorage Scale showed that the migrants obtained a mean score of 36.7 points compared to the non-migrants' mean score of 41.0. The difference between the means of the scores of both groups on the Anchorage Scale is significant beyond the .001 level (F ratio = 27.976, df = 1 & 242, Table 2).

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[2]All tables referred to from this page on are in Appendix D.

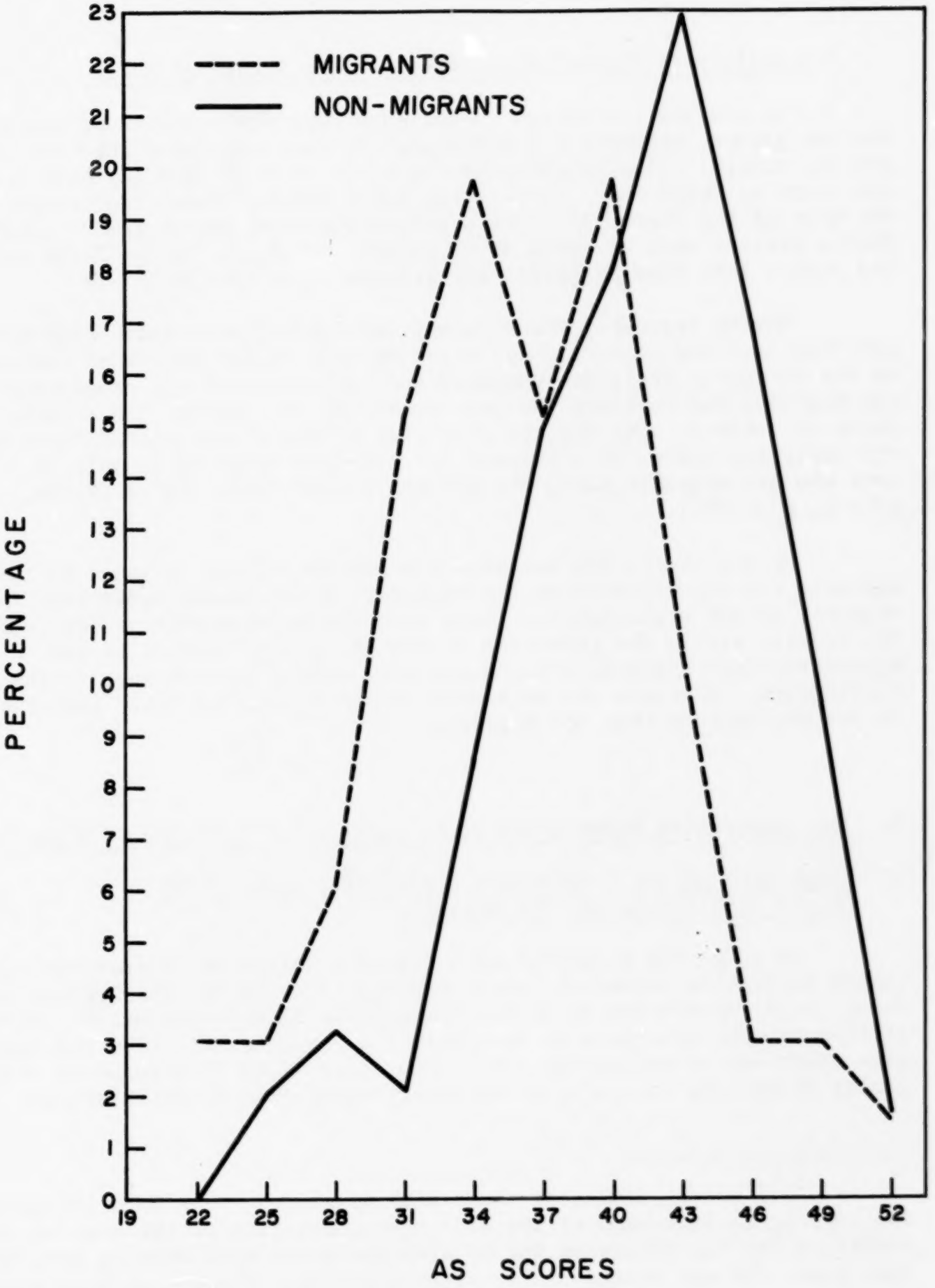

Figure 4.1. Percentage of Migrants and Non-migrants in terms of their AS Scores (Based on Table I)

Probability of Migration by Scores on the Anchorage Scale

To see how the scores on the Anchorage Scale relate to migration, the two groups, migrants and non-migrants, were regrouped into two categories, namely: (1) low anchorage score or "low AS" and (2) high anchorage score or "high AS." The cutting point between these two groups is the mean of the scores of the two groups combined, which is 39+ points. Scores greater than or equal to 39 points are classified as "high AS" and scores less than 39 points are grouped into "low AS."[3]

Having regrouped the migrants and non-migrants into "high AS" and "low AS," the proportion of migrants with "high" and "low" scores on the Anchorage Scale was computed and compared with the proportion of non-migrants who obtained the same scores on the scale. The results are shown in Table 3. The figures show that of the 99 who scored "low" on the Anchorage Scale, 41.4 percent are migrants compared to only 16.1 per cent who are migrants among the 155 who scored "high" ($X^2 = 18.789$, $df = 1$, $p < .001$).

On the whole, the analyses made on the scores obtained by the migrants and non-migrants on the Anchorage Scale demonstrated that the migrants scored significantly lower than the non-migrants on the scale. The results are in the predicted direction, giving support to the hypothesis that migrants and non-migrants differ in anchorage in the Philippines. Migrants are much more likely to exhibit "low" anchorage in the Philippines than non-migrants.

B. The Comparative Opportunity Scale (COS) as a Predictor of Migration

Comparison of the Comparative Opportunity Scale (COS) Scores of Migrants and Non-Migrants

To gauge the direction of a person's valuation of opportunities, eleven evaluative statements about opportunities in the Philippines and U.S.A. were constructed to form a Comparative Opportunity Scale. These statements were so worded as to elicit the person's affective and cognitive reactions by having him select one answer from five response categories of varying intensity of agreement-disagreement, satisfaction-

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[3] All cases, including those with missing answers were included in the regrouping into high or low AS. A recomputation of the mean of the scores of the two groups on the AS with the cases with missing answers on some items did not substantially alter the computed means of both groups, thus it was decided that their inclusion in the regrouping into low or high AS would not distort the figures.

dissatisfaction, approval-disapproval and similar responses of affect (see Chapter III).

The responses to the COS items were scored according to the same scheme followed for the AS. For example --

Item #28: Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A. How do you feel about this?

	Assigned Score
Strongly agree	5
Agree	4
Uncertain	3
Disagree	2
Strongly disagree	1

Item #59: All things being equal, it is easier for a Filipino to rise to an executive position in the U.S.A. than in the Philippines.

	Assigned Score
Strongly agree	1
Agree	2
Uncertain	3
Disagree	4
Strongly disagree	5

The total COS score of each subject on the scale was computed by summing his item scores. A high score on the COS is indicative of a favorable or positive valuation of opportunities in the Philippines. A low score on the COS means that the person views opportunities in the Philippines comparatively negatively.

The prediction, derived from the research hypothesis was -- migrants will tend to score low on the COS compared to the non-migrants. A study of how the migrants and non-migrants responded to the eleven statements on the COS revealed that the two groups significantly differed in their responses to the following questions or items, with migrants more likely to make responses unfavorable toward the home country (see Appendix D).

Item #5 is a question on how the subject would assess the chances for advancement in the Philippines of a young Filipino who is planning to go into his (subject's) field of specialization. Of the 91 who gave the response "very good" to this question, only 19 or 20.9 percent are migrants,

while of the 21 who responded "very little" or "little" to this question, 11 or about 57 percent are migrants ($X^2 = 11.173$, df = 4, $p < .05$).

Asked how much did they think then were their chances of getting the job they desired in the Philippines at the end of their U.S. study (#14), 62.5 percent of those who thought that they had very little chance of getting the job in the Philippines are migrants (N = 16). Of those who responded "very much" or that they perceived a very good chance of getting the job in the Philippines, only 20.9 percent are migrants (N = 91). The difference in the responses of the two groups to this question is significant beyond the .001 level ($X^2 = 20.247$, df = 4).

To the statement, "In your opinion, would you say that in the long run, a person with your experience and educational qualifications will be better off economically in the Philippines than in the U.S.A.?," only 3 or 7.0 percent of the 43 who strongly agreed with this statement are migrants, in comparison with 32.1 percent migrants of the 53 who strongly disagreed with this question ($X^2 = 24.826$, df = 4, $p < .001$).

Respondents who agreed with the following statements were more likely to be non-migrants:

"Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A." Of the 97 who strongly agreed or agreed with this statement, 86 or about 88 percent are non-migrants ($X^2 = 36.732$, df = 4, $p < .001$).

"In this day and age, it is not who you are but what you know that matters in the Philippines." Of the 33 who responded "strongly agree" to this statement, 26 are non-migrants and of the 66 who agreed with this statement 56 are non-migrants ($X^2 = 9.475$, df = 4, $p < .05$).

"There is room at the top for any individual who is hard-working and truly competent in his profession in the Philippines." Sixty-five of the 76 who strongly agreed with this statement are non-migrants and 74 of the 99 who agreed with this statement are non-migrants ($X^2 = 19.330$, df = 4, $p < .001$).

The other five items on the COS (#27, #31, #40, #59, and #21) elicited responses that were in the predicted direction but fell short of the .05 level of significance.

The frequency and percentage distributions for the COS scores of the migrants and non-migrants are shown in Table 4. These scores are graphically presented in Figure 4.2. Both show that the migrants scored lower than the non-migrants on the COS. A comparison of the mean scores obtained by the two groups on the scale showed that the migrants obtained a mean score of 32.848 points which is lower than the mean score of the

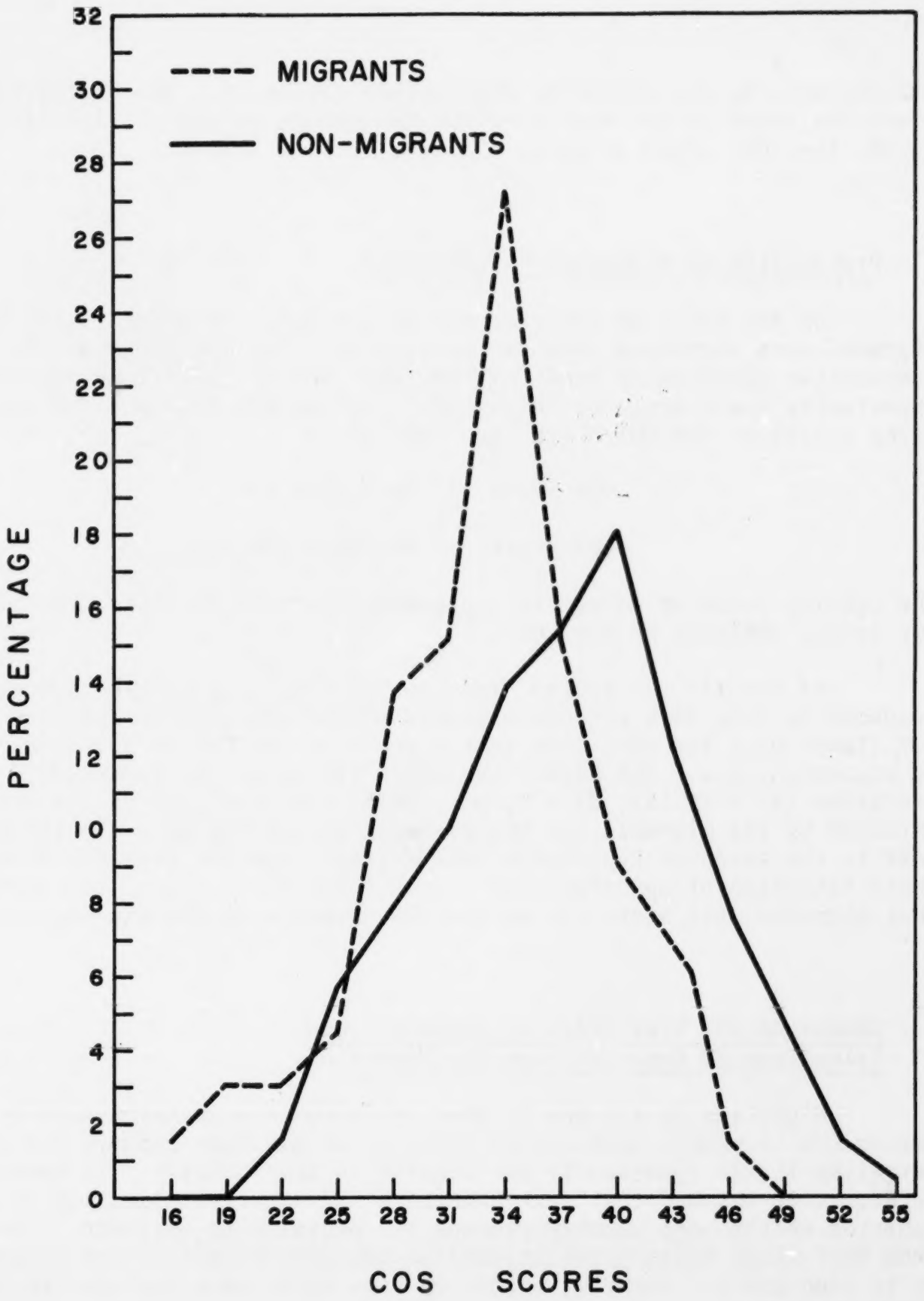

Figure 4.2. Percentage of Migrants and Non-migrants in terms of their COS Scores (Based on Table 4)

non-migrants by approximately four points (Table 5). The difference between the means of the scores of the two groups on the COS is significant beyond the .001 level (F ratio = 25.998, df = 1 & 234).

Probability of Migration by COS Score

On the basis of their scores on the COS, the migrants and non-migrants were regrouped into two categories: (1) low score on the Comparative Opportunity Scale or "low COS" and (2) high Comparative Opportunity Scale score or "high COS." The scheme followed for classifying scores on the COS "high" or "low" is --

COS score $\geq$ 36 = high COS

COS score $<$ 36 = low COS

The cutting point of 36 points represents the mean of the scores of the two groups combined on the COS.

Of the 119 who scored "low" on the COS, 37.8 percent are migrants compared to only 15.6 percent migrants of the 135 that scored high on the COS (Table 6). The data show that a score on the COS is negatively related to migration, i.e., the higher the score the lower the probability of migration (X^2 = 15.157, df = 1, $p < .001$). The analyses of the scores obtained by the migrants and non-migrants on the COS gave consistent support to the research hypothesis that migrants and non-migrants differ in their valuation of opportunities in the Philippines and to the prediction that migrants will score low on the COS compared to the non-migrants.

Checks on the Time Order of Anchorage and Valuations of Opportunities and Migration

Migration is assumed in this study to be a decision made by a person who is weakly anchored or attached to his home country and who perceives little opportunity for himself in that country. In other words, it is assumed that weak anchorage and negative valuation of opportunities in the home country precede the decision to emigrate. The data from this study being correlational do not provide sufficient evidence as to time order. However, checks on time order were included in the questionnaire. Moreover, a number of the background variables hypothesized to be correlates of migration but clearly antecedent to migration were expected to give some evidence on time order.

The checks on time order are two parallel questions directed at the migrants and non-migrants:

(1) Question for migrants: "Are you planning to return permanently to the Philippines at some future date? If "yes," when?

(2) Question for non-migrants: "Have you at any point in your life considered emigrating to another country?

On the basis of the research hypothesis, it was predicted that non-migrants scoring "low" on the Anchorage Scale would more likely respond "yes" to the question on whether they have ever considered emigrating. Likewise, it was predicted that migrants scoring "low" on the Anchorage Scale would tend to respond negatively to the question on whether they have any plans for returning to the Philippines.

The responses of the two groups to these questions were plotted against their AS scores. Of the 58 who scored "low" on the Anchorage Scale among the non-migrants, 75.9 percent responded "yes" or indicated that they had planned or are planning to emigrate, while of the 130 who scored "high" on the Anchorage Scale among this same group, only 25.4 percent indicated that they had considered or are considering emigration. The difference between the proportions of the "low" AS and "high" AS groups that responded positively to the question on intention to emigrate among the non-migrants is significant beyond the .001 level ($X^2 = 40.196$, df = 1, Table 7).

Similarly, of the 25 who scored "high" on the AS among the migrants, 68.0 percent responded "yes" or indicated that they plan to return to the Philippines compared to only 43.9 percent of those who scored "low" on the AS that intend to return to the Philippines. The results are in the predicted direction but they did not reach the .05 level of significance ($X^2 = 2.717$, df = 1, $p < .10$, Table 8).

Further check on the time order of anchorage and migration was made by looking at the AS scores of the student group.[4] The responses of this group to the question on whether they plan to return to the Philippines were plotted against their scores on the Anchorage Scale. Fourteen scored "high" on the AS and all intend to return to the

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[4]This study was fortunate in having a group from the same population who are still enrolled as students in different American universities. This group of 21 persons completed the research questionnaire but were excluded from the two groups since they are neither migrants nor non-migrants. The responses of this group proved highly valuable in checking the time order of anchorage and valuation of opportunities and migration, as well as in validating the assumptions of this study.

Philippines. Of the seven who scored "low" on the AS, four do not plan to return (Table 10).

The same procedure for checking the time order of anchorage was followed in determining the time order of a person's valuation of opportunities and migration. The responses of non-migrants to the question on whether they have ever considered emigrating were cross tabulated with their COS scores. It was expected that non-migrants scoring "low" on the COS would be more likely to indicate that they had planned or are planning to emigrate. The results showed that of the 74 who scored "low" on the COS, 60.8 percent had planned or are planning to emigrate against 39.2 percent who scored "low" who had not planned or are not planning to emigrate. In contrast, of the 114 who scored "high" on the COS, only 28.1 percent indicated that they had planned or are planning to emigrate compared to 71.9 percent who scored "high" on the COS who had not at all planned or are intending to emigrate ($X^2 = 18.560$, df = 1, $p < .001$, Table 11).

Likewise, the responses of the migrants to the question on whether they have plans for returning permanently to the Philippines were plotted against their COS scores. It was predicted, in line with the hypothesis, that migrants scoring "low" on the COS would be more likely to respond "no" to this question than those scoring "high" on the COS. The data did not confirm this prediction (Table 12).

The analysis was carried on and refined further by taking the group of migrants who indicated plans for returning to the Philippines and looking at how many of them were more or less certain of returning to the country. It is presumed that those who plan to return more than five years from now are less likely to return at all. Of the 35 who indicated plans of returning, only 13 are intending to return within five years' time. The rest plan to return approximately ten years from now (Table 13). Further check on the time order of valuation of opportunities and migration was made by examining the responses of the student group to the question on whether they intend to return, in relation to their COS scores. It will be noted that of the 18 who scored "high" on the COS, 16 intend to return to the Philippines (Table 10).

By and large, the analysis conducted to determine the time order of anchorage and valuation of opportunities in relation to migration (within the limitations of a simple cross-sectional survey) obtained consistent support for the assumption that weak anchorage and negative valuations of opportunities in the home country preceded migration or the decision to emigrate.

C. Relationship of Scores on the Anchorage Scale and Scores on the Comparative Opportunity Scale and Migration

The scores on the Anchorage Scale and on the Comparative Opportunity Scale were cross tabulated to see how these scores relate to each other and to migration. The results showed that 69.7 percent of those who scored "low" on the AS (N = 99) also scored "low" on the COS, while 67.7 percent of those who scored "high" on the AS (N = 155) also scored "high" on the COS. Thus, the Anchorage Scale and Comparative Opportunity Scale scores are strongly positively correlated ($X^2 = 32.519$, df = 1, $p < .001$, Table 14).

With scores on the COS held constant, the negative relationship between AS and the probability of migration is maintained although it is not statistically significant, given high COS (Table 15). Holding scores on the AS constant, it will be observed that COS remains negatively related to migration. On the basis of Table 15, it may be said that the likelihood of migration is greatest for persons scoring "low" on both scales, and least for persons scoring "high" on both scales. Of the two intermediate types, i.e., Low AS - High COS and High AS - Low COS, being "low" on AS appear to be a more powerful predictor of migration than being "low" on COS.

Summarizing the results of the analyses of the scores and responses of the migrants and non-migrants to the items on the Anchorage Scale and Comparative Opportunity Scale, the data gave consistent support to the research hypotheses: (1) migrants have lower anchorage in the Philippines compared to the non-migrants, (2) migrants are more likely to assess conditions for advancement in the Philippines unfavorably. The data further supported the prediction that scores on both scales are negatively related to migration. In short, the data tended to support the theoretical scheme by which we proposed to understand some of the forces underlying a person's migrating or non-migrating behavior. The data indicate that migrants and non-migrants significantly differ in their attitudes toward the home country.

D. Other Predictors of Migration

It was also predicted, in line with the two major hypotheses of this study, that there are other factors besides a person's attitudes that are associated with migration. We posited that migrants and non-migrants would differ in certain background characteristics. A comparison of the two groups in terms of these variables was, therefore, made and those that were found to be highly predictive of migration are discussed in the following pages.

Sources of Support in the U.S.A. during Study or Training and Migration

Chu found that social support from the home culture is positively related to student return or repatriation, and that expatriation or non-return is positively related to the amount of social support from the host culture. Chu used three indices to measure social support from the home culture: home sponsorship of the student trip, perceived recognition upon return, and job offer from home (Chu, 31). This study tested again Chu's concept of social support in relation to migration, using social support from the home country as one form of tie that anchors a person to his home country. Social support was, however, refined so as to distinguish support from the home government from other forms of social support such as family support, self-support, support from the host government, support from the host university, support from private foundations in the home and host countries, and support from private foundations or support from profit-making institutions or private employers in the home or host country.

The non-migrants and migrants were asked to check their source(s) of support while studying or training in the U.S.A. from a set of answers referring to the sources of support specified above (Table 16). Of the 132 who indicated that they were government supported during their U.S. study or training, only 6.1 percent are migrants. The term "government-supported" refers to sponsorship by either the Philippine (home) government or U.S. (host) government, or both. The data show that government support, either from the home or host government is a predictor of non-migration ($X^2 = 54.585$, df = 1, $p < .001$, Table 17. Refer also to Tables 18 and 19).

Table 16 shows that persons who were self-supporting or family-supported were those who migrated the most. Sixty percent of those who were self-supporting during their U.S. study or training have become migrants (N = 70). Of those who received support from their family, 47.2 percent have become migrants (N = 53). These two groups were followed by those who were sponsored by a U.S. university or a U.S. foundation. Of the seven who received support from a private employer in the Philippines not a single one migrated.

Several tests were made to observe whether the initial relationship between government support and migration would continue if other factors were held constant. It was found that holding scores on the Anchorage Scale constant, government support continued to be highly associated with returning home. The relationship was found significant beyond the .001 level ($X^2 = 30.041$, df = 1, Table 20). With scores on the Comparative Opportunity Scale held constant, government-supported persons, regardless of their COS scores migrated in a significantly smaller proportion than those who were not government-supported ($X^2 = 29.381$, df = 1, $p < .001$, Table 21).

Further attempts to wash out the relationship between government support and migration by holding constant such other factors like age, sex, level of education attained in the U.S. and field of specialization produced results that tended to support the negative relationship between government support and migration (Tables 22 through 25). Further analysis of the relationship between government support and migration was made by examining the socioeconomic background of the subjects. No significant difference was found between the government-supported and non-government supported.

Age as a Predictor of Migration

Wilson found that age is significantly related to migration (99). His study of the migration of British scientists showed that migrant scientists are a young group. Their median age ranged from 31-35 years. But he also found that among those who migrated, those who intend to return to their country of origin (U.K.) are also the younger migrants. Chu, however, did not find any significant relationship between age and student expatriation (31).

Age was used in this study as an indicator of anchorage in the home country. Consonant with the concept of anchorage, younger persons were expected to be less anchored to their home country than older persons. This assumption was tested by looking at the age of the subjects at the point of their departure for U.S. study. Age at the time of U.S. study was measured by asking the subjects this question: "How old were you when you left for U.S. studies?" (#61). This was followed by a set of age ranges and the subject was instructed to check the age range closest to his age at the time he began his U.S. study. The tabulated responses to this question are shown in Table 26.

The data show that persons who were 30 years old or younger at the time they began their study abroad migrated in significantly higher proportions than persons who were over 30 years old. In fact, among those who were 40 years old or older, not a single one migrated ($X^2 = 39.156$, $df = 6$, $p < .001$, Table 26). The subjects were also asked to indicate their date of birth for the purpose of providing an objective check on the responses to the previous question and to determine the age composition of the migrants at present. The migrants are indeed a young group. Approximately 94 percent (61/65) of those who answered this question were born after 1930. This means that 94 percent of the migrants in this study are presently within the age range of 23-32 years compared to the median age range of the non-migrants which is 33-42 years old ($X^2 = 45.490$, $df = 5$, $p < .001$, Table 27).

Why do younger people migrate? Is it basically because the young are less attached to traditional ways and habits of the home

country, more flexible in adjusting to new situations and the like, or is it due to the fact that their roots in the home country are not as yet too deep, so to speak? These assumptions were tested by holding scores on the Anchorage Scale and Comparative Opportunity Scale, government support, sex, and other factors constant.

The analyses showed that with scores on the Anchorage Scale held constant, the negative relationship between age and migration remains statistically significant. With "low" AS, 48.6 percent of those who were 30 years or younger at the time of their U.S. study migrated, (N = 74) compared to only 8.3 percent who migrated from among those who were over 35 years old ($X^2 = 7.615$, df = 2, $p < .05$, Table 28). With "high" AS, 31.3 percent migrated among those who were 30 years old or younger at the time of their U.S. study, (N = 80) in contrast to not a single migrant from those who were over 35 years old (N = 42). The difference in proportions is significant beyond the .001 level ($X^2 = 27.626$, df = 2, Table 28).

Holding scores on the Comparative Opportunity Scale constant, the relationship between age and migration continues. Table 29 shows that with "low" COS, 52.6 percent of persons 30 years old or younger when they started their U.S. study migrated (N = 78) compared to only 5 percent who migrated among persons who were over 35 (N = 20) years old ($X^2 = 21.318$, df = 2, $p < .001$). With "high" COS, the same relationship was noted.

Could the relationship between age and migration be an artifact of other situational circumstances or personal characteristics? Non-government support was found to be highly associated with migration. Are younger persons less likely to be government supported and, therefore, much more likely to emigrate? Holding the presence or absence of government support constant, the data revealed that of those who were government-supported during their U.S. studies (N = 49) 14.3 percent migrated among persons who were 30 years old or younger at the time of their U.S. studies compared to none at all from among those who were over 40 years old ($X^2 = 9.290$, df = 1, $p < .01$, Table 30). The data demonstrate that age continues to predict migration, even with government support held constant. The data, however, indicate that younger persons are less likely to be government supported.

Table 30 further shows that government support considerably weakened the relationship between age and migration. Only 14.3 percent of the government-supported persons who were 30 years old or younger at the beginning of their U.S. study migrated, compared to 51.4 percent of the non-government supported persons belonging to the same age group who migrated. With government support held constant, the proportion of migrants among the young people was sharply reduced from 51.4 percent to 14.3 percent, and for older persons, i.e., over 30 years old, migration becomes practically nil with government support. Only one (N = 82) of the persons who were over 30 years old at the time of their U.S. study and who received support from the government migrated.

The analysis of the relationship between age and migration was carried on further by introducing sex as a test factor. Again it will be noted from Table 31 that younger men migrated more than older men ($X^2 = 20.796$, df = 2, $p < .001$). Also, younger women migrated in significantly higher proportions than older women ($X^2 = 11.354$, df = 2, $p < .01$, Table 31).

Sex as a Predictor of Migration

Table 32 shows the proportions of male and female that migrated in this sample. The data strongly point out that the migrants are predominantly female. The difference in proportions between the sexes is significant beyond the .001 level ($X^2 = 16.373$, df = 1, Table 32).

Several attempts were made to throw light on the relationship found between the female sex and migration. Could we attribute this relationship to: (1) a difference in attitudes or emotional attachments toward the home country between the sexes?, (2) a difference in their perceived opportunities in the home country?, (3) a differential treatment of the sexes in the Philippines in terms of, e.g., distribution of government scholarships, occupational or employment opportunities?, (4) a difference in their age at the beginning of their U.S. study?, and (5) a difference in their marital status?

Table 33 shows the relationship between sex and scores on the Anchorage Scale. Among those with high scores on the Anchorage Scale (N = 155), only 39.4 percent are female ($X^2 = 6.526$, df = 1, $p < .02$). Continuing the analysis by examining the relationship between sex and migration, with scores on the AS held constant, we find that the relationship between sex and migration is partially washed out. Among those with high scores on the AS, the female sex migrated much more than the male sex, 32.8 percent against 5.3 percent respectively ($X^2 = 18.651$, df = 1, $p < .001$, Table 34). But migration is equally great for both sexes when scores on the AS are low ($X^2 = .259$, df = 1, NS).

No significant difference between the sexes was found in terms of their scores on the Comparative Opportunity Scale (Table 35). But when the relationship between sex and migration was examined, holding scores on the COS constant, the females still were more likely to migrate than the males, although the relationship was weakened for those with low scores on the COS (Table 36). Without government support, women migrated much more than men. With government support, 4.4 percent of the men (N = 90) migrated, compared to 9.5 percent who migrated among the women (N = 42) -- a much weakened relationship. Among those who did not receive government support during their studies, 36.2 percent of the men (N = 47) migrated compared to 54.7 percent of the women who migrated (N = 75). Although the relationship between sex and migration, when

government support is held constant, falls short of statistical significance, the relationship does not completely disappear. It will be noted from the data, however, that men are more likely to be government-supported than women (Table 37).

Holding age constant, women 30 years old or younger at the beginning of their U.S. study migrated much more than men of the same age (Table 38). The data show that 47.7 percent of the women who were 30 years or younger at the time they left for U.S. study migrated compared to only 29.4 percent of the men of the same age that migrated ($X^2 = 4.558$, df = 1, $p < .05$). Among older persons, i.e., over 30 at the time of their U.S. study, the relationship between sex and migration is substantially weakened. Table 38 further shows that there were 99 persons who were over 30 years old at the beginning of their U.S. study. Of this group, only 30 or approximately 30 percent were women. Thus, the large proportion of migratory women in the sample may be partially accounted for by their relative youth. Youth does not completely account for the sex difference because younger women are still more likely to migrate than younger men.

Further analysis of the relationship between sex and migration was made by comparing the sexes in terms of their marital status at the start of their U.S. study (Table 39). The data show that there were more single women than single men at the beginning of their U.S. study. The difference between the sexes in terms of marital status at the start of their U.S. study is significant beyond the .001 level ($X^2 = 37.512$, df = 1). Holding marital status at the start of their U.S. study constant, the relationship between sex and migration partially disappears for single subjects but is very strong for married subjects (Table 40). Single persons migrate more than married persons regardless of their sex. To check whether citizenship of spouse may explain the obvious propensity to migrate among married women, the sexes were further analyzed by holding citizenship of spouse constant. Regardless of the citizenship of the spouse, married women migrated more than married men. Of those having a Filipino spouse, more than 30 percent of the women migrated compared to only 9.1 percent of the men ($X^2 = 10.353$, df = 1, $p < .01$, Table 41). From the same table, it will be noted that having a foreign spouse makes migration highly probable for both sexes: five out of seven men married to a citizen of the U.S. or some other nation migrated and all 17 women married to non-Filipinos migrated.[5]

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[5]Of the 24 married to foreigners, 18 are married to U.S. citizens and 6 to other nationals.

Level of Education Attained and Field of Specialization in the U.S.A. as Predictors of Migration

Existing theories maintain that persons with "universally saleable skills" will be less dependent on ties in the home country and will tend to move in the direction of economic opportunities (Caplow, 4; Stouffer, 24; Ladinsky, 48). Several indices of universally saleable skills were used: academic ability and professional potential as indicated by academic performance, self-ranking of competence and ability, field of specialization, and level of education attained before and after U.S. study. It is assumed that persons whose academic ability is above average, whose field of specialization is in the natural sciences, engineering and medicine, and who have training beyond the bachelor's level possess more highly marketable knowledge and skills than persons who do not meet these qualifications.

On the basis of these assumptions, the subjects were compared in terms of their educational or professional background before and after U.S. study. No significant difference was found between the migrant and non-migrants on the basis of their academic ability, self-ranking of their competence, and level of education attained in the Philippines prior to their U.S. study (Tables 42, 43, and 44). The probability of migration was found to be significantly higher among persons who obtained a degree or special certificate from a U.S. university or training institution than those who did not obtain any degree at all. Among the 104 who obtained no degree from a U.S. institution, only 18.3 percent migrated, while of the 122 who obtained a master's degree or a higher degree, 32.8 percent migrated ($X^2 = 6.991$, $df = 2$, $p < .05$, Table 45).

Musgrove and many others have pointed out that there are certain types of education that tend to dislodge a person from his home country; and this process of dislodgement is accelerated by study abroad (Musgrove, 19). To test this observation, the relationship between level of education attained in the U.S.A. and migration was analyzed, holding scores on the Anchorage Scale constant. The results showed that persons who obtained a degree from a U.S. institution migrated more than those who did not obtain a U.S. degree, regardless of the AS score. Although the relationship failed to reach statistical significance, level of education attained in the U.S.A. and migration remain positively related. Of those who had low scores on the AS, 33.3 percent migrated from among those who did not obtain a U.S. degree compared to 46 percent among those who obtained a master's or a higher degree. Among those with high scores on the AS, 23.6 percent migrated among the persons who obtained a master's degree or higher, while only 10 percent migrated from the non-degree holders from a U.S. institution (Table 46).

With scores on the COS held constant, the results tended to give added support to the initial finding that persons who obtained a degree or some special certificate from a U.S. training institution migrated

more than persons who did not obtain any degree. Twenty-eight percent (N = 50) of those with low scores on the COS migrated compared to 49.0 who obtained the same scores but who hold a master's degree or a higher degree from a U.S. university (N = 51). Among those with the high scores on the COS, only 9.3 percent (N = 54) of the non-degree holders from a U.S. university migrated, compared to 21 percent who migrated among persons who obtained a master's degree or a higher degree. Although the relationship between migration and level of education attained in the U.S.A. fell short of the conventional .05 level of significance, when scores on the COS were held constant, the data continued to suggest the same relationship, i.e., level of education is positively related to migration (Table 47).

With government support held constant, level of education remains positively related to migration, although the differences are not statistically significant. Over 10 percent of those who were government-supported and who obtained a degree from a U.S. institution (N = 56) migrated compared to only one out of 60 who migrated among the government-supported who did not finish a degree ($X^2 = 4.638$, df = 2, $p < .10$, NS, Table 48).

Table 49a shows that 43.8 percent (N = 32) of persons in the medical professions migrated compared to 23.5 percent who migrated from the non-medical professions (N = 221). The difference in proportions is significant at the .05 level. Examining the relationship between level of education attained and migration, with field of specialization held constant, it will be noted that the possession of a degree or special certificate from a U.S. institution continues to be positively related to migration (Table 49b). But it will also be noted that persons possessing a degree from a U.S. university or institution in such fields as the physical sciences and engineering migrated much more than those specializing in other disciplines. For example, among those who obtained a master's degree or higher in any of the physical sciences, four out of 12 migrated, compared to not a single one from ten persons who trained in the same field but did not obtain a degree. Among the ten persons who obtained a master's degree or higher in engineering from a U.S. institution, seven migrated, but not one migrated from the nine who also trained in the same field in the U.S.A. but who did not finish a degree.

All the analyses done on the relationship between level of education attained in the U.S.A. and migration resulted in showing that persons possessing a degree from a U.S. training institution, regardless of their scores on the AS and COS, government support, and major field migrated more than persons without a U.S. degree. The analysis further showed that the power of level of education attained in the U.S. to predict migration is considerably weakened by government support, high anchorage in the Philippines and a favorable outlook on the part of the person regarding conditions for advancement in the home country.

Established Job Ties in the Home Country as a Predictor of Migration

In line with the concept of anchorage, it was expected that persons who had jobs awaiting them in the home country would be less likely to emigrate. To test this assumption, the responses of the subjects to the question on what action they took in connection with their job in the Philippines just before they left for U.S. study (#10) were tabulated and analyzed. The results are shown in Table 50. Not one person migrated from among those who went on leave from their job on official time.[6] On the other hand, 41.5 percent migrated from among those who were on leave from their job, but not on official time (N = 53). From among those who resigned from their job in the Philippines just before departure for U.S. study, 52.6 percent migrated (N = 57). And of the six who terminated their professional practice or severed connections from their job, four have become migrants. The relationship between having no job ties in the Philippines during U.S. study and migration is significant way beyond the .001 level (X^2 = 75.482, df = 4, Table 50).

Could the relationship between job ties in the Philippines during U.S. study be a function of the other powerful predictors of migration? This was investigated by holding such factors as government support, scores on the AS and COS, age, sex and other variables constant. With government support held constant, persons who resigned from their job or went on leave but not on official time migrated much more than those who went on leave on official time (X^2 = 37.289, df = 2, $p < .001$, Table 51).

Those who went on leave on official time were, with one exception, those who were employed by the Philippine government. Would the distinction between "leave, not on official time" and "resignation" continue to predict migration for those not employed by the Philippine government? Table 52 shows that resigning from a job or severing whatever connections a person had with a job in the Philippines prior to U.S. study continues

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[6]The term "leave on official time" means that a person is on special detail by his employer to study or train abroad. He is thus assured of returning to his job after study abroad, and is usually paid his salary while on study or training abroad.

The term "leave but not on official time" means that the person is assured of returning to his job within a limited period of time, usually within a year. Payment of his salary during his study abroad is discontinued.

Leave on official time implies obligation to return to the job; leave but <u>not</u> on official time, implies no obligation to return to the job.

to predict migration for non-government employees as well as government employees. On the whole resignation from a job prior to U.S. study, in contrast to any type of leave, regardless of place of employment is positively related with migration (Table 52).

Having no job ties in the home country during U.S. study remains highly associated with migration, even with age held constant. Among persons in this study born after 1930 who resigned from their job before leaving for study abroad (N = 56), 57.1 percent migrated; of those who went on leave but not on official time, 54.1 percent migrated (N = 37), and none migrated from 36 who went on leave on official time. Taking persons born in or before 1930, the same pattern holds (Table 53).

To what extent did salary before U.S. study contribute to a person's decision to resign from his job and to migrate? Resigning from a job in the Philippines before U.S. study and migration remains significantly related, regardless of salary or earnings prior to U.S. study. Persons who resigned from their job before leaving for U.S. study regardless of whether they were earning 4,000 pesos or 10,000 pesos or more, migrated much more than those who went on leave on official time (Table 54). Holding scores on the AS and COS constant, the same relationship between absence or presence of job ties in the Philippines during U.S. study is observed (Tables 55 and 56).

The above analyses have all demonstrated the association of a job to return to or being assured of a job in the home country after study abroad and a person's decision to return home. Clearly, it has been found that persons who have sure jobs to return to after study abroad are much less likely to emigrate. At this point, it is important to note that those who resigned may have done so for "X" reason or reasons that caused him both to resign and to emigrate.

Further analyses of the relationship between the presence or absence of job ties in the Philippines during U.S. study resulted in the following interesting findings. Two questions were included in the questionnaire to find out what the subjects did immediately after their U.S. studies (#7). Also, the subjects were asked to indicate why they decided to study or train in the U.S.A. This question was intended to gain some insight into the subject's motivations as well as to find out whether their motives at the point of their departure for U.S. study had any relation with what they decided to do after their studies. The responses to these two items were tabulated and the results are shown in Tables 57, 58, and 59.

Of the 63 persons who resigned from their jobs or severed connections from any job in the Philippines prior to their U.S. study, 43 remained in the U.S. at the end of their U.S. studies. Of this number, 34 or 79.1 percent have become migrants. Of those who indicated that they worked in the U.S.A. as their reason for staying on after their

studies, 83.3 percent are migrants (N = 42). Among those who indicated that improving their chances of getting a job in the U.S.A., 70.6 percent (N = 17) are migrants (X^2 = 11.284, df = 4, $p < .05$, Table 59). The data just cited provide some evidence that there are persons who seem to have made the decision to emigrate even before they leave for U.S. study and resigning from a job in the home country has been found to be highly associated with this group of persons.

To summarize, this chapter presented the statistical findings on the variables that were found to be powerful predictors of migration: scores on the AS, scores on the COS, age, government support, sex, level of education attained in the U.S.A., and established job ties in the Philippines during the period of study in the U.S.A. The interpretation of these major findings and a discussion of their implications are found in Chapter VII.

CHAPTER V

SOME UNEXPECTED AND PUZZLING FINDINGS

This chapter consists of two parts: Part I is a straightforward presentation of other variables that were found to be significantly related to migration but have eluded interpretation. The writer has deemed it appropriate to raise as many questions as possible, if only to stimulate interest and further investigation of these factors. It may be that the inconclusive findings presented here will turn out to be the more important contribution of this study. Part II discusses the variables presumed to be related to migration as suggested by existing theories and earlier studies but which were found to have no significant relationship to migration in this study. It also deals with other variables that appear to relate to migration but do not seem to have relevance to policy.

PART I

Type of Schools Attended in the Philippines and Migration

Bearing in mind Musgrove's thesis that intellectual migration may be due to the type of schools or kinds of education that persons have been exposed to and trained for in their home country, the subjects were studied in terms of the type of schools they attended in the Philippines and the level of education they had already attained at the point of their departure for U.S. study.

Elementary and secondary schools in the Philippines were grouped into the following:

(1) public schools -- these are schools supported by the local, provincial and national governments and, by and large, run and manned by Filipino lay or non-sectarian teachers.

(2) exclusive private schools -- these refer to private schools run and managed by religious orders; most, if not all are Catholic religious orders, e.g.,

Jesuits, La Salle, Assumption nuns and other similar religious orders. The term "exclusive" refers to the fact that tuition and other costs of education are comparatively high so that only those who are relatively rich can afford to send their children to these schools.

(3) non-exclusive private schools -- these refer to schools managed by private individuals or corporations, but the cost of educating children in these schools is very much lower than that of the exclusive private schools and is within the reach of low income groups.

Universities or colleges in the Philippines were grouped into:

(1) University of the Philippines -- the only state university in the Philippines until the 1960's;

(2) other state-supported universities and colleges, including teacher-training institutions;

(3) exclusive private schools, mostly Catholic schools;

(4) other sectarian, non-exclusive private schools; and

(5) non-sectarian, non-exclusive private schools.

The subjects were studied on the basis of the schools they attended at all levels of education. No relationship between attendance at an exclusive private school and migration was found. Moreover, a very small number, at the most 30 persons, attended an exclusive private school at each level -- elementary, secondary and college or university. Similarly, only a very small number or proportion of the subjects studied or attended a government-supported school at the college level outside the University of the Philippines (Table 60). The analysis was, therefore, focused on the relationship between attendance at a public school vs. attendance at a private school at the elementary and secondary levels, and attendance at the University of the Philippines vs. non-attendance at the University of the Philippines at the college level.

Table 61 shows migration by types of school attended in the Philippines at each level of the school system. It will be noted that the proportion of persons educated by private schools migrating at each level is significantly higher than the proportion of migrants educated in public schools. At the elementary level, 37.3 percent of those who indicated that they were educated by private schools are migrants (N = 75) compared to only 21.2 percent who are migrants (N = 179) from among those who were educated by public schools ($X^2 = 6.314$, df = 1, $p < .02$).

At the secondary level, 34.4 percent of those who were educated by private schools (N = 131) are migrants, compared to only 17.1 percent migrants of the 123 who indicated they were public school-educated. Again the difference in proportions migrating in the private vs. public school comparison is significant at the .01 level ($X^2 = 8.968$, df = 1, Table 61). The pattern repeats itself for the university level when subjects who attended the University of the Philippines vs. other colleges are compared ($X^2 = 4.178$, df = 1, $p < .05$). The data clearly suggest that persons educated in private schools in the Philippines have a much higher probability of migration than those who were educated in public schools. Is this relationship between private school-educated persons and migration genuine or could it be attributed to other factors? The data showed that persons who attended public elementary schools scored higher on the Anchorage Scale compared to persons educated in private elementary schools. About 70 percent of the persons educated in public elementary schools had high scores on the AS (120/179), while less than 50 percent of the persons educated in private elementary schools had high scores on the AS (35/75). See Table 62. No significant relationship was found between type of elementary school attended in the Philippines and migration, when scores on the Anchorage Scale were held constant but the pattern continued.

Again looking at the proportion of migrants who were educated in public secondary schools or private secondary schools and holding their scores on the Anchorage Scale constant, the relationship between type of school attended in the Philippines and migration is partially washed out (Table 63). Among those scoring low on the AS, public school-educated and private school-educated persons migrated in almost the same proportions. But with high scores on the AS, type of school attended at the secondary level is still significantly associated with migration. Again, study at a private school and migration are associated ($X^2 = 5.634$, df = 1, $p < .02$, Table 63). As with the elementary school breakdown, public school graduates tend to have higher scores on the AS than private school graduates.

Examining the college or university attended by the migrants in the Philippines, and again holding their scores on the Anchorage Scale constant, the relationship between private school education and migration is greatly weakened for those with low AS scores and somewhat weakened for those with high AS scores. Of the 64 who attended the University of the Philippines and who scored high on the AS, only 7.8 percent are migrants, while of the 91 who did not attend the University of the Philippines and who also scored high on the AS, 22.0 percent are migrants ($X^2 = 4.575$, df = 1, $p < .05$, Table 64). Further analysis of the relationship between type of school attended in the Philippines and migration was made by holding scores on the Comparative Opportunity Scale constant (Tables 65, 66, and 67). It will be noted that although five of the six relationships fall short of statistical significance, in every comparison in these tables, private school education is associated with a higher probability of migration than public school education.

With government support held constant, the original relationship between type of school attended in the Philippines and migration is considerably weakened, but the probability of migration is still higher for those educated in private schools. This trend appears to be slightly broken at the university level, where government-supported persons who attended the University of the Philippines migrated in a slightly higher proportion than those who were government supported but who attended a college or university other than the University of the Philippines. But since the difference is very, very small, it is likely to be unreliable. A striking feature of the marginals in Table 68 is that, at every level, persons educated in the public schools are much more likely to be government supported than private school graduates.

The analyses made of the relationship found between education at private schools and migration, on the whole, consistently showed that private education was associated with emigration. This relationship would be greatly weakened by holding constant such factors as government support or AS or COS scores. Some of the initially observed relationships could be accounted for by the tendency of private school graduates to have "low" AS scores and to be unsupported by the government.

These results inevitably raise a number of questions: (1) Are private school-educated persons in the Philippines truly different from public school-educated persons? In what do they differ -- in attitudes? in values? in ability? in training? in work experience? in socio-economic background? The data now available are not adequate to provide answers to these questions, but it would indeed be profitable for long-range educational planning and policy-making to probe these questions.

Degree of Participation and Involvement in the Philippines Prior to and After U.S. Study and Migration

Concrete and actual participation and involvement in activities or problems in the home country were measured by obtaining information about extent of membership in professional, civic and other organizations in the Philippines prior to and after U.S. study, position of responsibility in these organizations, awareness of problems of national importance, extent of the person's concern about these problems, and similar information (#50 to #53). The responses to these items were tabulated and the two groups were studied on the basis of their responses. No significant difference between the migrants and non-migrants was observed in terms of their membership in organizations in the Philippines prior to U.S. study (Table 69, #50). Migrants were, however, found to differ significantly from the non-migrants on the basis of their responses to the question on whether there is or there has been any problem of national importance in the Philippines that they had wanted or want to do something about. Of the 203 who indicated concern for some Philippine problems, e.g., poverty, crime, peace and order situations and the like,

only 21.7 percent are migrants. But of the 42 who expressed no concern for problems of national importance in the Philippines, 42.9 percent are migrants. The relationship between expressed concern for problems in the Philippines and migration is significant at the .01 level ($X^2 = 7.178$, df = 1, Table 69, #53).

Migrants were also found to have very little involvement at the present time in organizations -- professional, civic, etc., either in the Philippines or the U.S.A. or elsewhere. Of the 221 who indicated present membership in organizations, only 22.2 percent are migrants, while of the 24 who indicated non-membership in organizations at the moment, 66.7 percent are migrants ($X^2 = 19.765$, df = 1, $p < .001$, Table 69, #52). By and large, the analyses of the relationship between past and present involvement in home country's activities and concerns and migration have shown that migrants are less committed or less concerned about their home country's problems or conditions affecting their home country than non-migrants. The still unresolved problem is whether this little commitment or little concern of the migrants for national problems in the Philippines is subsequent rather than antecedent to their decision to emigrate. Not enough evidence is available from this study to clarify this moot question.

Employer Prior to U.S. Study and Migration

Being employed or engaged in some occupation or not being employed in the Philippines before departure for U.S. study was found to have no significant relationship to migration (Table 70). However, a rather interesting and at the same time intriguing result is, that of the 150 persons who were employed in the Philippine government prior to their U.S. study, only 12.0 percent migrated compared to 46.2 percent who migrated among persons who were not employed in the Philippine government prior to their U.S. study ($X^2 = 35.496$, df = 1, $p < .001$, Table 71). Could this relationship between employer prior to U.S. study and migration be a function of government support, which is most likely awarded to government employed persons? This was investigated by controlling for government support. The results showed that among those who were government supported, the association between government employment and non-migration is weakened. The relationship is strong for those who are not government supported. Thus, there is interaction between government support and government employment such that government employment is not as powerful a factor when it occurs with government support as when it occurs without government support. It is also true that government employed persons are more likely to be government supported, but this does not "explain" the relationship (Table 72).

If we use salary or earnings before U.S. study as a test factor to see whether the original relationship between type of employer and

migration can be washed out, we find that it does not alter the original association between variables. Among those who were earning 4,000 pesos or less annually prior to their U.S. study, only 22.2 percent of the government employed migrated, compared to 42.2 percent of those who migrated from the non-government employed ($X^2 = 4.050$, df = 1, $p < .05$, Table 73). Among persons who were earning over 4,000 to 10,000 pesos annually prior to their U.S. study, only 4.8 percent migrated among the government employed (N = 84) against 52.8 percent who migrated (N = 36) among the non-government employed ($X^2 = 34.464$, df = 1, $p < .001$, Table 73).

It is interesting to note from Table 73 that among persons employed in the Philippine government, migration decreased with high salary. Among persons employed outside the government, salary did not seem to make any difference in their tendencies to migrate. Whether they were earning 4,000 pesos or less or 10,000 or more prior to their U.S. study, the probability of migration among non-government employed persons appears the same. In other words, persons employed or working outside the Philippine government before their U.S. study migrated more than government employed persons, regardless of salary.

The relationship between employment outside the government and migration continues to be a marked one even when we control for the attitude scale scores. Tables 74 and 75 show that given "high" and "low" scores on COS and AS, the two variables continue to be related to a degree that reaches statistical significance. In addition, holding age constant, type of employer and migration remain significantly related (Table 76).

All the above analyses consistently showed that persons employed outside the Philippine government before they left for U.S. study are much more likely to emigrate than persons employed in the Philippine government, regardless of all the powerful predictors of migration. No clear or obvious explanation emerged from these analyses. One can only speculate on the possible reasons and raise several questions regarding this interesting and unexpected result.

Is it possible that in having worked for the Philippine government, these persons have developed a greater sense of identification with or commitment to country? Or could it be that having worked for the Philippine government, these persons now perceive some kind of a leverage from which they see greater opportunity for advancement in the home country? Or do persons having a high anchorage in the home country naturally seek employment in the Philippine government? Table 74 shows that government-employed persons are much more likely to have high COS. Why?

Job Desired after U.S. Study and Job Now

The subjects were asked to indicate the kind or kinds of job that they wanted to get at the end of their U.S. studies. No significant difference was found between the two groups in terms of those who indicated they wanted a teaching job, to work in research or development, and to engage in some private professional practice (Table 77). But of the 71 who indicated desire for a managerial or executive position, only 11.3 percent are migrants. The difference in proportions between the two groups on this particular item is significant at the .01 level (X^2 = 10.060, df = 1, Table 77).

A look at the kinds of jobs that the subjects are mainly doing at present revealed that a significantly smaller proportion of the migrants are occupying positions on the managerial or executive level. Only 9.4 percent of the people who are doing managerial or executive work are migrants, against almost 53 percent who are migrants who are engaged in work classified as "other jobs." This classification refers to jobs that cannot be considered as teaching, research or development, managerial or supervisory or professional practice (X^2 = 29.308, df = 5, $p < .001$, Table 78).

Salary or Earnings Annually Prior to U.S. Study and Present Earnings

A study of the earnings of the migrants and non-migrants before they left for U.S. study disclosed no significant difference between the two groups (Table 79). The data, however, showed that the migrants, as a group, were earning a little less than the non-migrants at the time they left for U.S. study. Over 57 percent of the migrants (N = 57) were getting no more than 4,000 pesos a year compared to 42.6 percent of the non-migrants (N = 176) who indicated that they were earning the same amount prior to their U.S. study. For a comparison of the present salary of the migrants and non-migrants, please refer to Tables 80 and 81. Also, for other descriptive statistics concerning the two groups, refer to Tables 98 through 105.

PART II

Socioeconomic Background and Migration

Initial studies on the emigration of high-level persons and the non-return of students from developing countries point out that persons belonging to a higher social class in the home country are least likely to emigrate. Myers observed that upper and middle class students "will return ... they have too much to lose by staying in the United States" (68, p. 38). This study used social class as one of the determinants of anchorage in the home country. Based on existing studies and on Caplow's theoretical view of migration, it was expected that persons belonging to a high socioeconomic class in the Philippines will more likely return after their study abroad.

Socioeconomic class as used in this study refers to the subject's socioeconomic origin in the Philippines, hence the indicators used were: mother's highest educational attainment, father's highest educational attainment, and father's occupation. The migrants and non-migrants were compared in terms of these three indicators of socioeconomic class. The results are shown in Table 82. Of 62 persons who indicated that their mother had no schooling or no more than some elementary schooling, 21.0 percent are migrants, compared to 30.5 percent migrants among 59 who indicated that their mother had a college degree or a higher degree ($X^2 = 2.221$, df = 3, NS, Table 82). Over 18 percent of those who said that their father had no schooling (N = 33) or only some elementary schooling are migrants, against 29.2 percent who are migrants among those who indicated that their father had a college degree or a higher degree ($X^2 = 5.382$, df = 3, NS, Table 82). The relationship between the probability of migration and parents' highest educational attainment is not a strong one but a slightly greater proportion of the migrants in this sample come from families where both parents are highly educated. The direction of the difference is opposite from the findings of previous studies. Father's occupation as an index of socioeconomic class was likewise found to have no significant relationship to migration. Of the 50 persons who indicated that their father was engaged in some manual occupation, 24.0 percent are migrants, compared to 32.4 percent who are migrants among those who said that their father belonged to the managerial or executive class by occupation ($X^2 = 6.425$, df = 4, NS, Table 82).

The data, on the whole, failed to support the thesis that migrants are more likely to come from a lower socioeconomic class. On the contrary, there is a tendency for migrants to come from middle and upper socioeconomic classes. The data now on hand do not allow further refinement of this relationship. For instance, earnings of parents may be a more powerful measure of socioeconomic class. This study does not have this information. Furthermore, breaking down father's occupation according to prestige in the Philippines may also be a more predictive measure of socioeconomic class. Again this information is not now available.

Vested Interests in the Philippines and Migration

Having property or investments or other forms of vested interests in the home country was found to have no significant relationship to the migration or non-migration of high-level persons from the Philippines (Table 83). This finding is quite compatible with our finding of no significant difference between the migrants and non-migrants in terms of their socioeconomic class or origin in the Philippines.

Family Ties in the Philippines and Migration

The extent and strength of family ties in the Philippines during the period of U.S. study were measured by obtaining information from the subjects about their marital status at the time of their departure for U.S. study, citizenship of spouse, location of their family during the period of study, presence of relatives in the U.S.A. and expressed obligation to assist family members (Items #68, 32, and 33).

a. Marital Status at the Time of U.S. Study: Table 84 shows that a significantly higher proportion of those who were single at the beginning of their U.S. study migrated. Over 35 percent of persons single at the start of their U.S. study migrated compared to only 15.9 percent who migrated among the married. The relationship between marital status and migration is negative ($X^2 = 11.671$, $df = 1$, $p < .001$). It will be noted, however, that married persons whose families joined them in the U.S.A. during their period of study migrated more than married persons who left their families behind in the Philippines throughout the period of their study abroad (Table 84).

With age held constant, the relationship between marital status and migration is much weakened (Table 85). No difference is noted in the propensity to migrate among single and married persons who are young, i.e., persons born after 1930. However, among older persons, born in or before 1930, single persons migrated somewhat more ($X^2 = 3.842$, $df = 1$, $p < .05$).

b. Citizenship of Spouse and Migration: A significantly higher proportion of the migrants were found married to non-Filipino citizens. Of 163 who reported being married to a Filipino, only 16.0 percent are migrants, whereas among 18 persons who indicated having an American spouse all are migrants, and of the six persons who reported having a spouse of some other nationality, four are migrants ($X^2 = 65.478$, $df = 2$, $p < .001$, Table 84). Holding sex constant, the relationship between citizenship of spouse and migration continues, i.e., persons with a foreign or non-Filipino spouse are more likely to be migrants (Table 86).

c. Presence of Relatives in the U.S.A. and Migration: Having relatives in the U.S.A. was found to have no significant relationship to being migrant or non-migrant. Over 27 percent of those who indicated having relatives in the U.S.A. (N = 101) are migrants and 25.2 percent who reported having no relatives in the U.S.A. (N = 151) are migrants (Table 84). This finding is somewhat interesting considering that in a study of Dutch migrants (Beijer, et al., 2) having relatives in the country of destination was found to be a factor strongly associated with the migration of Dutch labor. This suggests that there may be certain aspects of intellectual migration that do not quite conform with certain conditions that characterize migration of unskilled persons.

d. Expressed Obligation to Assist Members of the Family as an Index of Family Ties and Migration: The subjects were asked to indicate who were the members of their family to whom they think they have an obligation to assist in normal times. It is not uncommon in the Filipino family system for an older son or daughter to help in the education of a younger sibling or for an unmarried uncle or aunt to send a nephew or niece to school. This question was, therefore, intended to determine the extent and closeness of the subject's family ties in the Philippines. The tabulated responses to this item are shown in Table 84, #5. No significant difference was found between the two groups in terms of this measure of family ties. Both groups showed that their family relationships go beyond the nuclear family -- they extend beyond father, mother, offspring, to include even aunts, uncles, nephews and nieces, cousins and other kin. This finding is quite compatible with the responses of both migrants and non-migrants to Item #34 on the Anchorage Scale which tended to favor the Filipino family system over all others known so far to the subjects. The only difference observed between the two groups was their expressed obligation to assist their children in normal times. A possible explanation to the significantly smaller proportion of the migrants indicating such obligation is that a very large percentage of the migrants are without children as yet (refer to Table 84 and 87).

On the basis of the above analyses of the indicators of family ties in the Philippines, it may be said that the migrants' family ties in the Philippines appear to be relatively weaker than that of the non-migrants at the point of their departure for U.S. study and at present for the following reasons: (1) a significantly larger proportion of the migrants were single at the time they began their U.S. study, (2) a significantly larger percentage of the migrants are married to a non-Filipino, and (3) among the married migrants, a significantly higher proportion had their families with them in the U.S.A. during their period of training or study.

As pointed out at the beginning of this chapter, some of the results presented in this section are puzzling but extremely interesting. In the absence, however, of sufficient and more relevant data, this

writer would like to stress that the interpretations made of these findings are highly tentative. At best, these findings may be useful in charting new areas for research on the "brain drain" phenomenon.

CHAPTER VI

MOTIVATIONAL ORIENTATIONS AND MIGRATION

This study also intended to explore to what extent high-level persons from the Philippines compare or differ in their motivational orientations with the view to finding out whether the outflow of trained persons from the Philippines could be partly attributed to a difference in people's orientations or goals and values.

Several open-ended questions were included in the questionnaire to explore the motivational orientations of the migrants and non-migrants. These questions covered the following areas:

(1) reasons or motives for studying or training in the U.S.A.;

(2) reasons given by migrants for living and working in the U.S.A.;

(3) reasons given by non-migrants for returning to the Philippines;

(4) what each group thinks are the reasons why highly trained Filipinos migrate to the U.S.A.;

(5) what each group considers would be the principal factor that they would consider if faced with the alternative of migrating or not migrating to the U.S.A.;

(6) what each group has experienced as the major sources of frustration for professionals in the Philippines;

(7) what each group considers are the main goals and values in life; and

(8) what each group considers as the most important factors in the choice of a job.

The responses of the migrants and non-migrants to these items were tabulated and analyzed. Those that elicited responses tending to set the two groups apart are discussed in the subsequent sections.

Reasons for U.S. Study and Migration

Item #2 (Questionnaire) gave a set of reasons most commonly mentioned by foreign students in American universities as being important in their decision to study in the U.S.A. The subjects were instructed to check the row and column indicating how important each of these was to them when they decided to study in the U.S.A. The responses of the two groups to this item were tabulated and the results are shown in Tables 88, 89, and 90.[1]

The data presented in Table 88 show that migrants and non-migrants significantly differ in their motives for studying in the U.S.A. Of the 26 who indicated that getting a good job in the U.S.A. was a very important reason for their decision to study there, 73.1 percent are migrants. In comparison, only 10.8 percent of those who checked this reason as "not important" in their decision to study in the U.S.A. are migrants (N = 130).

Another motive for U.S. study in which migrants and non-migrants significantly differed in their ratings is the motive "to gain advanced training in my major field." Of the 225 who rated this motive "very important" in their decision to study in the U.S.A., only 23.6 percent are migrants ($X^2 = 7.920$, df = 3, $p < .05$, Table 89).

Sources of Frustration for Professionals in the Philippines and Migration

The subjects were asked to identify what, in their own experience, are the sources of frustration for individuals in their profession in the Philippines. The answers to this question were coded into two major categories: (1) monetary or economic and (2) non-monetary and non-economic. Further refinement of these two categories was made. The coded responses to this item were tabulated and are shown in Table 91. The data show that both groups tended to mention the following as the major sources of frustration for professionals in the Philippines: (1) poor pay and poor material rewards, (2) unfavorable professional milieu, e.g., social

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[1]Tabulations of the responses to other items are not included because they were checked by less than ten respondents.

indifference, non-appreciation of the profession, and (3) government inefficiency, such as red tape, nepotism and corruption, as well as interference and meddling in appointments and promotion. One source of frustration that was mentioned by a significantly higher proportion of the migrants is the overall limited or poor absorptive capacity of the Philippine economy for trained persons ($X^2 = 7.814$, df = 1, $p < .01$, Table 91). This result is interesting when viewed against the responses of the two groups to the question on what they observed are the surest means of getting ahead in the Philippines (Table 92). Of the 104 who mentioned "ability and hard work" as the surest way to success in the Philippines, only 9.6 percent are migrants ($X^2 = 23.114$, df = 1, $p < .001$). This result suggests that migrants and non-migrants differ in their reactions to existing conditions in the Philippines. While non-migrants appear to face their conditions in the Philippines and believe that they can do something about them through their capabilities and hard work, migrants do not seem to feel that they will be justly rewarded for their ability and hard work.

Reasons Given by Migrants for Living and Working in the U.S.A. and by Non-Migrants for Returning to the Philippines after their U.S. Study

The migrants were asked this question: "In your own experience, which of the following influenced your decision to work and live in the U.S.A. (#25)? The subjects were instructed to check as many of the given reasons as they think applied to them:

a. dissatisfaction with conditions in the Philippines;

b. U.S. attraction, in terms of jobs available, high salary, higher standard of living, better professional opportunities and the like;

c. unique personal circumstances, such as marriage to a U.S. citizen or another nationality, family moved to the U.S.A., etc;

d. purely personal reasons, such as desire for adventure, greater independence, preference for temperate climate and the like; and

e. other reasons.

The tabulated responses to this item are shown in Table 93. Ranking the reasons on the basis of the size of the percentage checking each of these reasons, those that were most frequently checked by the migrants are: (1) U.S. attractions in terms of jobs available, high

salary and similar material considerations, (2) dissatisfaction with conditions in the Philippines, and (3) unique personal circumstances, such as marriage to a U.S. citizen. In this connection, here are some excerpts from the remarks made by those who indicated "dissatisfaction with Philippine conditions" as their main reason for deciding to remain in the U.S.A.:

> I hate the 'padrino system' of finding a job or 'padrino' in everything you have to do. Wonder when we can do away with our "palakad" system. I want to work because of my own achievement.
>
> Sure! eliminate politics ... recognize a person's merits ... sans whom you know, sans family.
>
> Offer jobs on the merit system.
>
> Jobs should be given to qualified persons only, and not on the basis of nepotism but on qualification and experience.
>
> I know of Fulbright grantees and other scholars who earned their degrees and almost had to beg for jobs when they went home. This is most humiliating to say the least ... Had I gone home I would not have gone back to my old job as a teaching position was waiting for me ... made possible by a well-known relative, sad to say. Nevertheless, I was well qualified for that job.

Item #25 above was reworded to fit the situation of the non-migrants, thus -- "In your own experience, which influenced your return to the Philippines?" Circle as many as apply to you:

a. inability to get the job desired in the U.S.A.;

b. visa problems;

c. official or business commitment in the Philippines, like contract to return to a job;

d. purely personal reasons, such as homesickness, desire to be with family in the Philippines, etc.;

e. desire to serve the Philippines and similar patriotic sentiments; and

f. other reasons.

The responses of the non-migrants to this question are shown in Table 94. Based on the size of the percentage checking the specified reasons for return to the Philippines, the three, in the order of frequency checked by the non-migrants are: (1) commitment to return to a job in the Philippines, (2) family considerations and other personal reasons, and (3) desire to serve the Philippines and other similar patriotic sentiments.

In addition, both groups were asked to indicate the principal factor that they would personally consider if faced with the alternative of migrating or not migrating from the Philippines. The responses to this question were coded into two categories, namely: (1) reasons clearly favoring return or non-migration, and (2) reasons obviously favoring migration. The coded responses were tabulated and are shown in Table 95. It will be observed from the data that the migrants tended to give relatively more weight to factors clearly favoring migration to the U.S.A. and relatively little weight to factors favoring return to the Philippines. For example, of the 44 who mentioned opportunity to serve country as one reason they would personally give much weight in considering migrating or not migrating, only six or 13.6 percent are migrants. Again, of the 28 who would consider professional opportunities available in the Philippines as a factor that may keep them there, only two or 7.1 percent are migrants ($X^2 = 4.759$, df = 1, $p < .05$, Table 95).

Other Indicators of Motivational Orientations and Migration

No significant difference was found between the migrants and non-migrants in terms of what they consider important in the choice of a job (Table 96). It will be noted, however, that the migrants appear to differ somewhat from the non-migrants on the basis of the three factors that they consider most important in the choice of a job. Table 96 shows that the migrants checked the following factors: (1) a challenging job, (2) high salary, and (3) economic security for self and family. The non-migrants, on the other hand, picked out the following: (1) a challenging job, (2) opportunity to rise on merit, and (3) economic security for self and family.[2]

Based on the "push-pull" concept of migration and taking into account the result of this exploratory study of motives underlying the outflow of trained talent, the following hypothetical model for predicting migration or non-migration is offered for future investigation:

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[2]The listing of these factors is based on the size of the percentage checking them.

Home country factors	Case	Host country factors	Likely decision
repelled →	A →	attracted	emigrate
attracted →	B →	attracted	undecided
repelled ←	C ←	repelled	undecided
attracted ←	D ←	repelled	return or would not emigrate

On the whole the analyses of motivational orientations showed that both groups share similar concerns and interests but they differ slightly in the degree to which they assign importance or priority to some of these concerns. Moreover, the data showed that the two groups differ in the direction of their orientations -- the non-migrants appeared to be more responsive to the "pull" forces of the home country, while the migrants seem to be more attuned to the "attractions" of the host country. This difference in orientation may be partly explained by the fact that the non-migrants have a comparatively higher anchorage in the home country.

CHAPTER VII

DISCUSSION AND IMPLICATIONS

OF MAJOR FINDINGS

PART A

The findings from this study gave consistent and strong support to the hypothesis that migration of U.S.-educated or trained Filipinos is a function of anchorage. Several indicators of anchorage were found to be powerful predictors of migration.

1. Scores on the Anchorage Scale as a Measure of Anchorage in the Philippines and a Predictor of Migration

A person's beliefs, cognitions and opinions about the home country are indicators of his anchorage in that country. The Anchorage Scale was designed to measure these aspects of a person's attitudes. A low score on the Anchorage Scale means negative or unfavorable attitudes toward the Philippines. A high score on the same scale is indicative of favorable or positive attitudes toward the Philippines.

The analyses have shown that by and large, the migrants consistently reacted negatively to statements favorable to the Philippines and positively to statements unfavorable to the Philippines. The non-migrants, on the other hand, tended to react favorably to statements favorable to the Philippines and negatively to unfavorable statements about the Philippines. Consequently, the migrants as a group scored significantly lower than the non-migrants on the Anchorage Scale.

Moreover, it was also found that the scores on the Anchorage Scale predict migration. Non-migrants who had planned or are presently planning to emigrate were found to be more likely those who scored low on the Anchorage Scale. Similarly, migrants who indicated no intention of returning to the Philippines at all were those who scored low on the Anchorage Scale. This finding was given added support by the scores of the Student group on the Anchorage Scale and their responses to the question on whether they intend to return to the Philippines after their studies. It was found that students who scored low on the Anchorage

Scale were those more likely to have expressed no plans of returning to the Philippines.

These results all tend to give support to the hypothesis that migrants differ from non-migrants in that they are more likely to have unfavorable or negative attitudes toward the home country than the non-migrants, thereby suggesting that their emotional ties or attachments to their home country are weak.

The findings also tend to give support to the assumption that anchorage in the home country determines to some extent a person's decision to emigrate. Evidence to the effect that a person's anchorage in his home country or lack of it precedes his decision to emigrate was obtained from the responses of: (1) the non-migrants who had planned or are planning to emigrate, (2) from migrants who indicated no intention of returning to the Philippines, and (3) from the students who expressed no plans of returning. All these three groups tended to score low on the Anchorage Scale, thereby supporting the prediction that a low score on the scale would be indicative of a weak anchorage in the Philippines, and, therefore, would be an index to a person's propensity to emigrate.

2. Government Support as an Index of Anchorage and a Predictor of Migration

The factor of support from the government, whether from the home government or host government, has emerged from the analyses as a very potent factor for ensuring the return of persons sent abroad for study or training. This finding showed that not all kinds of social support from the host culture are positively related to migration, as was suggested in an earlier study (Chu, 31). Support from the host government has been found in this study to be negatively related to migration.

Government support, by general rule and policy, requires recipients to sign a contract binding themselves to return to their home country upon completion of their studies or training. This obviously explains partly the negative relationship between government support and migration. However, a closer look at this relationship suggests that it is not only because government support imposes "sanctions to return" on the recipient, but certain factors associated with government support seem to contribute to "preventing" migration. Among other things, government-supported persons were found to have scored higher on the Anchorage Scale and on the Comparative Opportunity Scale, implying, therefore, that government supported persons are highly anchored in the Philippines and have favorable attitudes toward conditions for advancement in the country. Furthermore, government supported persons were found to be older. In addition, government support quite often carries with it the assurance of a job upon return from study abroad.

The unresolved question at this point is -- are persons who are high in anchorage and who perceive opportunities for themselves in the home country likely to accept government support or does government support create in the recipients attitudes that tend to attach them to the home country and make them view conditions in the home country more favorably? This question requires further study.

Suffice it to say at this point that high AS and high COS scores are associated with being a government-supported person -- but these attitudes in no way explain why government-supported people return home. It is not alone the "sanctions to return" that seem to make recipients of government support go back to the home country after their study abroad. Perhaps the fact that government support represents some form of assurance of a job upon return from abroad and that government-supported persons are more likely to possess certain characteristics and are likely to be in certain situational circumstances tend to draw them back to the home country are the more plausible explanations for the negative relationship found between government support and migration.

These findings strongly suggest that the conditions under which government support may be given to a person can be manipulated in such a way as to ensure a high rate of return among its recipients through a better process of recruitment and selection of candidates or applicants for government support and an improved program for the proper job placement and utilization of returned grantees.

3. Age as a Determinant of Anchorage and a Predictor of Migration

Age was found to be negatively related to migration. Younger persons migrated much more than older persons. This was given considerable support by the data obtained in this study, and all tests to check the strength of the relationship between age and migration resulted in giving added support to the original finding. The results showed that older persons, i.e., over 35 years old, at the time of their departure for U.S. study tended to return with or without government support, whereas persons younger than 35 years old at the point of their departure for U.S. study tended to emigrate, with or without government support. But it was demonstrated that the likelihood of migration among younger persons can be considerably weakened by government support.

Age, as a predictor of migration, is related to government support, anchorage and perceived opportunities. Older persons were more likely to be government-supported, to have higher anchorage in the Philippines and to have more favorable valuations of opportunities in that country. The data showed that anchorage in the home country increases with age but the attitude scale score does not account for the

original relationship between age and migration. Age is positively related to government support and if we hold government support constant we can weaken the relationship of age and migration. The relationship between age and migration may best be regarded as a function of a number of other factors concomitant with the process of becoming ensconced in one's society besides the factors inherent in the process of becoming older.

4. Sex as a Determinant of Anchorage and a Predictor of Migration

Women were found to be more migratory than men in this study. Attempts to account for this relationship showed that the female sex, regardless of their scores on the Anchorage Scale, scores on the Comparative Opportunity Scale, government support, age and marital status migrated much more than the males. With these factors held constant, however, it was observed that the relationship between sex and migration partially disappeared or was considerably weakened. This suggests that the original relationship is in part accounted for by the fact that women tended to be younger and not supported by the government.

The data showed that the women in this sample were younger than the men at the beginning of their U.S. study. Besides, more women were single than men at the beginning of their study and fewer women were government-supported compared to men.

These findings strongly suggest that the relationship between sex and migration may be attributed to the differences in the situational circumstances between the sexes, and to a differential treatment given to the sexes. For example, the data showed that more men were government-supported. Perhaps, if support opportunities for younger women were increased, the number of educated female returnees would also increase. In addition, it was found that more women were married to foreigners and that all of these women were migrants. This suggests that their being migrants is more likely to be the consequence of their marital status, than of a choice that they voluntarily made between returning to the home country or remaining in the U.S.A.

5. Level of Education Attained in the U.S.A. and Specialty as Determinants of Anchorage in the Philippines and Predictors of Migration

The data showed that possessing a degree or a special certificate from a U.S. institution is positively related to migration. The data further pointed out that persons having a degree in the physical sciences and engineering from a U.S. institution migrated much more than those who

obtained their degree in other disciplines. These findings give support to the general observation that the further a student goes on the graduate level in American universities the more likely he is to think in terms of migrating, and this is especially true in the case of the scientific disciplines. In addition they give support to Caplow's theory that persons possessing highly saleable skills and knowledge are more mobile and less dependent on local ties (4).

Regardless of the level of education attained in the U.S.A., students returned in significantly higher proportions when government-supported during their U.S. studies. This finding argues for giving government support to persons working for higher degrees in the U.S.A., especially to those who are specializing in the sciences and engineering, for these are the persons who migrate the most if not government supported. Besides, developing countries, like the Philippines are in dire need of leadership and competently trained manpower in these areas.

No significant difference was found in terms of academic ability and professional potential between the persons who migrated or did not migrate. Both groups were observed to be above average in their academic ability. This finding can be understood in light of the admission requirements of most universities in the U.S.A. This finding implies that the Filipinos who go for advanced studies in the U.S.A. are, by and large, of no mean academic and professional potential. Thus, the non-return of some of them may indeed be a reduction in the supply of promising young men and women in the Philippines. Considering that the bulk of Filipinos who go into graduate studies go overseas, mainly to the U.S.A., this situation is of great concern. This is shown in Table VII.1:

TABLE VII.1

Enrollment in Graduate Schools in the Philippines and Number of Filipinos Who Left for Advanced Studies * or Training in the U.S.A. by Field, 1960-1965

Fields	Enrollment in Philippines Graduate Schools	Left for Advanced Studies in the U.S.A.
Physical sciences and math	17	228
Life sciences (biological & agricultural)	24	309
Engineering, including management engineering	62	211
Social sciences	4	137

* Figures taken from Annual Reports of the University of the Philippines, Bureau of Private Schools, and Department of Foreign Affairs, Manila, Philippines.

The data above underscore the importance of adopting and studying measures that will increase the return of U.S.-educated Filipinos, who it appears constitute the bulk of high-level persons from the Philippines, especially in the more critical professions.

6. Established Job Ties in the Home Country as an Index of Anchorage and a Predictor of Migration

Having a job to return to in the Philippines after U.S. study was found to be significantly related to return or non-migration. This was found to be true even in the case of persons who were not government-supported and who were not employed in the government prior to their U.S. study. On the other hand, resigning from a job or cutting off ties with a job in the Philippines just before departure for U.S. study was found to be positively related to migration.

The questions that seem foremost in this regard are: Do persons who intend to return to the Philippines after their U.S. study, in making sure that they will have a job upon their return, seek and agree to officially commit themselves to return to their job, thus agreeing to go on leave on official time? Similarly, do persons who have no intention

of returning to the Philippines after their U.S. study make the necessary effort in making sure that they would not be, in any way, obligated to return and, thus, they decide to resign from their job or to minimize as much as possible the extent of their commitment to return?

Attempts to find answers to these questions were made by looking at the motivations for U.S. study of the persons who resigned from their job or severed connections from their job in the Philippines just before or during their U.S. study. The analyses showed that persons who resigned from their jobs in the Philippines and who migrated were more likely to be those who indicated that they decided to study in the U.S.A. in order to, among other things, improve their chances of getting a good job in the U.S.A. It was also found that of the 63 persons who resigned from their jobs or severed connections from their job in the Philippines before their U.S. study, 42 remained in the U.S.A. and of this number 83.3 percent have become migrants. These findings imply that there is a group of persons among those who go to the U.S.A. for study, who appear to have made the decision to emigrate even before their departure for U.S. study. Resigning from their job in the Philippines was found to be highly associated with this group of persons.

PART B

This study also gives strong support to the hypothesis that migration of U.S.-educated or trained Filipinos is a function of a person's valuation of opportunities in the Philippines compared to those in the U.S.A. Several indicators of a person's valuation of opportunities were found to be highly correlated with migration. These indicators are: job expectations, perceived conditions for advancement in the Philippines, and occupational background factors.

1. Scores on the Comparative Opportunity Scale (COS) as a Measure of a Person's Valuation of Opportunities in the Philippines and Migration

We predicted that migrants are more likely to have negative or unfavorable valuation of opportunities in the Philippines compared to the non-migrants. The COS was constructed in such a way that a low score on the scale would be indicative of negative valuation of opportunities in the Philippines and a high score would signify positive or favorable valuation of opportunities in the Philippines.

The analyses of the responses of the migrants and non-migrants to the eleven attitudinal statements composing the COS showed that a significant proportion of the migrants tended to agree with unfavorable statements about conditions for advancement in the Philippines and to disagree with favorable statements about existing opportunities in the Philippines. The overall assessment of the migrants of opportunities in the Philippines alluded to in the COS is clearly negative.

The analyses also showed that scores on the Comparative Opportunity Scale predict migration. Non-migrants who had planned or are presently planning to emigrate were more likely to be those who scored low on the COS. Likewise, migrants who indicated plans of returning to the Philippines were largely those who scored high on the COS. This finding was given added support by the scores of the Student Group on the COS. Students who indicated that they plan to return to the Philippines after their studies were those who scored high on the COS. These findings also give support to the assumption that a negative valuation of opportunities in the home country precedes the decision to emigrate.

2. Occupational and Work Background in the Philippines as Determinants of a Person's Valuation of Opportunities and Predictors of Migration

Migration according to existing sociological theories tends to flow in the direction of economic opportunity (Stouffer, 24; Caplow, 4). In line with this view, it was expected that persons who had no job in the Philippines prior to their U.S. study, or who were receiving a comparatively lower salary, or whose job in the Philippines prior to U.S. study was rather unstable, or who perceived very little opportunity for finding the job they desired after their U.S. study, would be more likely to migrate.

The analyses showed that although the relationship between having no job before U.S. study and migration did not reach statistical significance, the data indicate that more persons migrated from among those who had no jobs when they left for U.S. study (Table 70).

Persons employed outside the Philippine government migrated in significantly higher proportions than those employed in the Philippine government prior to U.S. study, regardless of their salary. Salary, however, appeared to have made some difference on the part of persons employed in the Philippine government at the time of their U.S. study. The higher the salary the fewer the number of persons that migrated (Table 73).

The analyses regarding the relationship between government employment prior to U.S. study and migration holding constant other variables like COS and AS scores, age, government support and salary consistently showed that employment in the Philippine government prior to U.S. study is negatively related to migration. The data also showed that government-employed persons tended to score high on both the AS and COS. Inasmuch as there is not enough information to explain this relationship, this finding implies a more careful study of why persons employed in the private sector in the Philippines appear to migrate more than government-employed persons. Are they different in motivations, in attitudes and values or are the conditions of private employment in the Philippines less satisfactory? These are questions that need to be probed by further research.

3. Job Desired after U.S. Study and Perceived Chances of Getting the Job in the Philippines

Comparing the migrants and non-migrants in terms of the kinds of jobs they desired after their study abroad, no significant difference was found among those wanting to have a job in teaching, in research and development, and in some kind of private professional practice. But a significantly smaller proportion of the migrants desired a managerial or executive job compared to non-migrants. A significantly higher proportion of the migrants indicated that they perceived little or very little chance of getting the job they wanted in the Philippines (Item #14, Appendix I).

These results are interesting when viewed against the kinds of jobs the two groups are currently engaged in. It will be observed from Table 78 that a significantly higher proportion of the non-migrants are presently occupying managerial or executive positions than is true of the migrants. In contrast, a larger proportion of the migrants are doing work classified as "other jobs" which means all kinds of office work that fall below the supervisory level and cannot be classified as research or developmental, teaching or related work.

Looking at the proportion of migrants who are presently connected with professional and other organizations, it will again be noted that a significantly smaller proportion indicated membership in these organizations at the present time (Table 69).

The data strongly point out that migrants are, by and large, presently doing work that appears to be outside their field of specialization as suggested by the large percentage engaged in "other jobs" and those who are not members of any professional organization. This seems to be contrary to the general observation that professionals migrate in search of greater professional satisfaction. There is in these findings

an indication that those who migrate are motivated more by considerations other than professional.

By and large the results of the analysis of the factors presumed to have some bearing on a person's assessment of opportunities in the home country and, consequently, on migration have supported Caplow's theory: what a person would consider "opportunities" depends on his values and basic attitudes; that "opportunities" is something that goes beyond objective measurement. The analysis also demonstrated that the decision to emigrate appears to consist of two parts: (1) the objective attractiveness of the point of destination and (2) the actor's perception of that pull in relation to the push from the point of origin (Cohen, 97).

IMPLICATIONS

This study has demonstrated in a rather consistent way that the migration of high-level persons from the Philippines to the U.S.A. is a complex phenomenon highly associated with not one but a combination of factors that by mutual interaction tend to bring persons to the point of migration. Any attempt, therefore, to deal with this problem must necessarily take into account these factors that impinge on a person's decision to emigrate.

The decision to emigrate was found to be significantly related to a person's basic attitudes and ways of viewing conditions in the home country, as well as to certain personal characteristics and situational circumstances that seem to precipitate and facilitate the decision to emigrate. These findings have both theoretical and practical implications.

At first glance, the findings from this study suggest the immediate adoption of restrictions regarding study abroad. The correlates of migration seem to be a good basis for determining who should be allowed or not allowed to study abroad, who should be selected or rejected for available scholarships, and under what conditions persons should be allowed to study abroad.

However, looking closely at the results of this study and sorting out the factors that appear to precipitate a person's decision to emigrate, there seem to be a number of ways by which the outflow of trained persons from an underdeveloped country, like the Philippines, can be approached in a positive manner. Efforts have, therefore, been made to search for the positive implications of the findings from this study. The position is here taken that punitive measures tend to aggravate rather than mitigate a problem.

Practical and Policy Implications

Sending persons to developed countries for advanced degrees or specialized training is a course that underdeveloped countries will increasingly continue to pursue, until such time when they shall have succeeded in establishing and providing graduate training in their own universities and developing training programs that they so badly need for development.

Considering limited funds for scholarship and training, a strategy of educational investment needs to be devised. Getting maximum returns from government investment in persons sent abroad for study suggests the selection of persons who are more likely to return, who would be about to enter their most productive years, and who are capable of rendering longer service.

The results from this study show that the propensity to migrate is higher among persons who are weakly anchored in the Philippines, who perceive little opportunity for themselves in that country, who are young and single, who have no job to return to, who are in fields such as the physical sciences and engineering, and who have succeeded in attaining a degree from a U.S. institution. However, it was also found that government support, when given during the period of study abroad, substantially attenuates the influence of all these factors and considerably weakens a person's propensity to emigrate. In fact, it may be said that of all the variables found to prevent migration, government support, with the obligations and privileges associated with it, appears to be not only the most effective, but also the easiest to manipulate.

Existing government programs for sending persons overseas for advanced or specialized training appear in the light of these findings to be aimed in the right general direction. However, the results of this study do suggest a rethinking of the recruitment and selection of persons for overseas study, the conditions under which these persons are sent abroad, the fields of training in which these scholarships need to be given, and the provisions for the utilization of the recipients of these scholarships upon their return from study abroad.

Government scholarships or training programs are of two types: (1) scholarships for degree training, and (2) scholarships for non-degree training.[1] Sending persons abroad for degree training or non-

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[1] There are more scholarships now available of the second type. A number of these scholarships are sponsored by foreign governments and made available to Filipinos through the Philippine government. Some scholarships are funded by the Philippine government. These scholarships, as a general rule, require the recipient to return to the Philippines at the end of his study or training overseas, with the option of reimbursing the Philippine government the amount equivalent to the value of his scholarship should he decide not to comply with this requirement.

degree training is a question that only the sponsoring institution and the recipient can resolve. This study would seem to support the contention that non-degree training would have the advantage of probably resulting in a higher rate of non-migration. However, such a policy might be short-sighted. The realities of our modern world frequently make study for an advanced degree a necessity. A higher or advanced degree seems to be a "must" for persons who are sent to study abroad for the purpose of future university teaching. Universities in underdeveloped countries need faculty members with advanced degrees to increase and enrich the capacity of higher education to produce the knowledge and skills required for development. For persons working in industry, where the concern is research and development, a higher degree is undoubtedly needed. For persons working in the government on the policy-determining level, a higher degree would be a great asset. In these days when advancement depends so much on innovation, research, technology and leadership of high quality, the need for persons with higher education in all levels of human endeavor cannot be gainsaid. All this does not imply, however, that government support should be exclusively for degree training. Non-degree training or short-term training is definitely a shrewd investment for a large percentage of mid-career people.

A great many of the scholarships now available through the Philippine government for degree training are awarded on a competitive basis; therefore, more weight is given to academic record or performance in an examination in the field for which the scholarship is to be awarded. Relatively little attention is given to the candidate's attitudes toward the country, his perceived or intended role in the country's development efforts, his conception of how his field of interest would fit into the country's development programs, or to other personal characteristics such as age, work experience, and how the training that the person is expected to obtain abroad will be utilized upon his return. The results of this study underscore the importance of these factors as bases for recruiting and sending persons for study abroad.

Getting persons who studied abroad to return to the home country at an age when their prime years are still ahead of them, implies investment in younger persons. The results of this study have shown that older persons (over 35 years old) tend to return whether or not they have received government support. It was, however, demonstrated that the propensity to emigrate among younger persons can be greatly reduced if government support is given during study or training. This finding argues for giving priority to younger persons in the award of government scholarships. It appears that persons between the ages of 25-35 are the best candidates for government scholarships, for these are the ages during which the propensity to emigrate is greatest if the student is not government supported.

While it is true that persons in all academic disciplines who obtained a degree from a U.S. institution tend to emigrate if not government supported during their study, this propensity is highest among those in fields like engineering, physical sciences and life sciences -- the very areas in which the Philippines has a dearth of highly trained manpower. This, therefore, suggests that more persons be subsidized in these fields through government scholarship.

Where sex is concerned, a careful consideration of all the factors highly predictive of migration is especially necessary. The findings indicate clearly that where limited funds for training are concerned, priority should be given to the male sex in all cases where the choice is between two persons of the opposite sex who are of equal competence, same age, same marital status, and almost equal degree of anchorage in the Philippines and similar attitudes toward the country. However, where the female is older, exhibits a higher degree of anchorage, perceives a clear role for herself in the country, etc., there seems to be no justification for her not getting priority over the male.

There is considerable evidence from the findings in this study that persons who migrate tend to be more critical and negative in their attitudes toward the home country. This suggests that some of the forces that impel persons to emigrate are "push" forces from the home country. It is necessary to study and isolate what these forces are and to see whether there are ways of structuring conditions in the home country so that there is generated a current of "pull" forces that will draw persons who study abroad back to the home country. More important are corrective measures designed to attack those "push" factors.

A short-term measure that can be designed to improve conditions in the home country and which has direct relevance to government scholarship programs is the adoption of a systematic procedure whereby persons sent abroad for study or training are properly placed and utilized upon their return from study abroad. There is nothing so frustrating and discouraging for persons who return from their study with great enthusiasm for trying out new ideas than to find themselves either without a job or assigned to a job completely alien to their specialization. This study has shown that persons who have no jobs to return to after their study abroad tend to emigrate, whereas those with jobs awaiting them in the Philippines tend to return, regardless of their salary. This seems to suggest that salary is not as important a factor for encouraging the return of persons who studied abroad as the assurance of a job upon return. But it should not be understood that salary is not important at all; among government sponsored persons, migration decreased among those whose salary was relatively higher.

Although government support is a potent factor in ensuring the return of persons sent for study abroad, it is undoubtedly a rather limited and narrow solution to the outflow of trained persons from underdeveloped countries when considering the thousands of others each year

who go abroad without government support. To attract these persons back to the home country would require a more comprehensive and constructive approach.

The idea of restricting the number of persons going abroad to study by means of immigration or passport requirements has been broached but a number of objections to the soundness of this plan have been registered from various quarters, pointing out that measures to restrict the movement of persons violate a basic legal or moral right of individuals to live where they please and to seek occupations that they believe they deserve. The writer wishes to be identified with the latter view, and would add that restrictive measures only tend to suppress rather than solve a problem.

As earlier mentioned the findings from this study imply several ways by which the outflow of trained persons from the Philippines can be reduced or minimized through positive measures.

Approximately 88.0 percent (225/254, Table 89) of the subjects in this study indicated that gaining advanced training in their field of interest was a very important reason in their decision to go to the U.S.A. for advanced study. This finding implies that if the kinds and levels of training that individuals seek in developed countries could somehow be made available in their own country, this would serve to reduce the outflow of persons from these countries. This is a venture where foreign aid could be profitably used. The political and economic feasibility of establishing centers for advanced training in underdeveloped countries which will make possible a program of faculty exchange between the center[2] and a university in a developed country should be carefully looked into.

Such an arrangement will not only reduce the number of persons going overseas for advanced training but will be a powerful deterrent to the movement of qualified persons out of the underdeveloped countries. Moreover, it will break the isolation of professionals, scientists, and researchers in these countries through continued and renewed contacts with authorities in their discipline in the developed world through a program of faculty exchange for short periods of time. Furthermore, research and training in these fields can be easily geared to the research and training needs of the underdeveloped country, since the location of the training center is the country itself. In addition, the presence of these graduate training centers in the less developed countries will, without doubt, have tremendous impact on the professional and scientific atmosphere of these countries.

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[2] In fact this idea of establishing training or graduate centers in underdeveloped countries has been recommended by the U.N. Economic and Social Council (45th Session, E/4483, 17 April 1968).

The three major sources of frustration to professionals in the Philippines according to the subjects of this study are: (1) poor pay and material rewards, (2) poor professional climate and (3) government inefficiency, red tape, favoritism and meddling in appointments and promotion (Table 91). This finding tends to support what many exploratory studies on the "brain drain" problem have very often surmised -- that the exodus of high-level persons from developing countries is a problem, the solution to which depends largely on the underdeveloped countries themselves. This means that the responsibility for regulating or reducing the flow of trained persons from underdeveloped countries rests primarily with these countries. Also, that any attempt to attract persons who studied abroad to return to the home country -- the Philippines in this particular case -- must take into account a careful study of these three major sources of frustration and plans for improvement of conditions in the country must necessarily start with these areas.

Theoretical and Research Implications

To go beyond the simple correlates of migration and raise the more basic questions behind it requires consideration of a person's attitudes, goals and values and of the societal forces that interact with the person's attitudes to cause him to emigrate.

This study has found considerable support from the data, that persons who are attitudinally anchored to the Philippines, are less likely to emigrate. How does a person become attitudinally anchored to his home country? Can this quality of anchorage to home country be taught? At this juncture, the writer would like to quote from one of the subjects of this study:[3]

> One who considers himself a Filipino needs no particular incentive to return to the Philippines ... he must realize that the Philippines is growing and must learn to appreciate the struggle in the process of growth ...
>
> I am of the opinion that it is more in the area of Filipino responsibility, understanding of and faith in the future of the country, than any form of attraction ...

How do we educate Filipinos for this kind of conviction and attitudes? Or is this something that persons acquire outside education or schools? There is a strong indication from this study that persons educated in public schools tend to show higher anchorage in the Philippines than persons educated in private schools. Why? The data from

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[3] Incidentally, these remarks were given by a migrant.

this study do not provide enough evidence to shed light on these questions. It may be worthwhile to probe this aspect further through research.

This study has also shown that persons who tend to emigrate are those who perceive very little opportunity for themselves in the Philippines. It was observed that migrants and non-migrants perceive conditions in the Philippines quite differently. Non-migrants were found to perceive more opportunities in the Philippines than the migrants. Although this difference in perception was partly explained by some of the sociological determinants used in this study, there still remains a gap between what can be explained and what cannot. In this connection, it would be interesting to quote from one of the non-migrants of this study:

> I belong to those who refuse to join the exodus to the U.S.... Here (referring to the Philippines) I could create business and I know in my small way I am providing jobs to some people.... While in the U.S.A., if I create a business of the same type, I don't think I can create even a dent ... Whatever you do here, you feel you are contributing something to the community ... If you have connections, it helps and it's a lot easier. But that is only accidental ... Under no condition would I favor leaving the Philippines. I am happier here because I could gain a headway and I know it. Besides, everybody must belong somewhere and I feel I belong here.

Some evidence has been found in this study that people who migrate differ somewhat in their motivational orientation. Migrants are more oriented toward the economic and material attractions of the U.S.A. while non-migrants tend to perceive and to be drawn by what they consider as the overall relative advantages of being in the home country.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

This study was prompted by the general concern over the "brain drain" phenomenon as it is currently understood, i.e., the flow of professionals or highly trained persons from the developing to the more developed countries of the world. It was pointed out that there is a dearth, if not a complete lack, of empirical or scientific research on practically all aspects of the "brain drain" phenomenon. Not much is known about the magnitude and direction of the flow of professionals from developing countries. Little is known of the quality of the persons that constitute this migration stream. Much less is known about the social and economic consequences of this flow of trained persons on both home and host countries. So far, only a few exploratory studies have been undertaken to determine the possible causes of this phenomenon. And yet numerous prescriptions are being made or suggested, clearly without the benefit of a careful and scientific diagnosis of the problem.

Objectives of the Study

The study had for its objectives the following: (1) to identify and specify the major factors associated with the migration of high-level persons from the Philippines to the U.S.A.; (2) to gain insights into the problem of prediction of migration among the highly trained; and (3) to throw light on ways in which education or training at home and abroad may help minimize the outflow of trained talent and skills from the Philippines. In addition, the study also planned to explore the motives, goals and values of persons who migrate vs. those who do not migrate with the view to finding out whether migrants or non-migrants would fit some kind of a typology in terms of their motivational orientations.

Scope and Limitations of this Study

This study defined "high-level," "highly trained" or "highly educated" persons as all individuals who obtained training in a specific discipline or area beyond the baccalaureate level. The subjects of this study were two comparable groups of U.S.-educated Filipinos drawn by stratified random sampling from the population of college educated

Filipinos with at least a bachelor's degree who went to the U.S.A. for advanced degrees or specialized training during the period from 1960 to 1965. The two groups represent those who are presently living and working in that country and those who have since returned to the Philippines. The former constitute what is referred to in this study as migrants and the latter are called in this study, non-migrants.

This study has many limitations. One of its major weaknesses is its complete reliance on one research instrument -- a questionnaire. The original plan to follow up the questionnaire with a face-to-face interview with the migrants could not be carried out because of time and resource limitations. However, interviews with a sample of non-migrants were conducted.

Another limitation of this study is that its subjects constitute a very special group of high-level persons from the Philippines, in the sense that they include only those who had gone to the U.S.A. for advanced degrees or specialized training. It excludes all professionals or high-level persons from the Philippines that emigrated to the U.S.A. without receiving training in an American institution. It also excludes Filipinos with college degrees who originally entered the U.S.A. as tourists and who later changed their visa status to that of students by enrolling in an American university. It is observed that while the number of persons belonging to both categories is substantial, it is quite impossible to keep track of these persons.

Still a third limitation of this study is that it is taken at only one point in time. We cannot tell with any certainty whether attitudinal factors found to be predictors of migration were present before the decision to emigrate or whether they appeared as post hoc rationalizations.

Research Design, Conceptual Scheme and Methodology

This study took into account the general observation that to get a complete picture of why high-level persons migrate, it is not enough to just study the migrants. It is equally important to study those who do not migrate. This study was designed to do both.

The research design was built around two major hypotheses generated from existing theories of migration, sociological concepts of occupational mobility and movement of professionals, and of processes of dislodgement or alienation from one's society of origin associated with education. It also deduced ideas from existing views of the factors that enter into a decision making process. In short, this study examined the "brain drain" phenomenon in the broad theoretical context of migration, education, and decision-making. The research hypotheses were:

Hypothesis 1: Migrants and non-migrants differ in their anchorage in the Philippines: Migrants will tend to have lower or weaker anchorage in the Philippines than non-migrants.

Hypothesis 2: Migrants and non-migrants differ in their valuations of opportunities in the Philippines: Migrants will tend to register more unfavorable valuations of opportunities in the Philippines than non-migrants.

Based on the research hypotheses, it was predicted that persons exhibiting weak or low anchorage in the Philippines will be more likely to emigrate; that persons reacting negatively to observed conditions for advancement in the Philippines will be more prone to emigrate.

Data to test these hypotheses were collected mainly by a self-administered paper and pencil questionnaire sent to the subjects by mail. The questionnaire contained statements constructed in the manner of a Likert scale constituting two attitude scales designed to measure and determine a person's beliefs, feelings and other forms of emotional attachments to the Philippines -- referred to as a person's anchorage in the Philippines -- and to determine a person's valuations of opportunities in that country compared to the U.S.A. Several items were also included in the questionnaire to collect background data about the subject.

Results

By and large, the findings from this study gave consistent and strong support to the research hypotheses and to the predictions made on the basis of these hypotheses. If our attitude scale is a valid operationalization of the concept of anchorage in the Philippines, migrants exhibited less emotional attachment to the Philippines. They also differed from the non-migrants in terms of the other personal characteristics like age, and the situational circumstances that were assumed to be the sociological determinants of anchorage and, therefore, related to migration. In line with the expectation that migrants would tend to perceive fewer opportunities for advancement in the Philippines, the migrants, by and large, reacted negatively to statements about opportunities in the Philippines and tended to register more unfavorable observations about conditions for advancement in that country than did the non-migrants.

The study, as a whole, showed that migration of high-level persons from the Philippines to the U.S.A. is substantially associated with the person's basic attitudes toward the home country and with certain

personal characteristics and personal circumstances. Such characteristics as age and sex were found significantly associated with migration. Likewise, such situational circumstances as government support while studying or training abroad, formal commitment to return to a job in the home country after study abroad, level of education attained abroad, and field of specialization were related to the probability of returning home. Still other factors like perceived opportunities and work experiences in the home country prior to study abroad were found highly associated with migration. To summarize the findings --

1. Migration of high-level persons from the Philippines is a function of anchorage in the home country:

   a. Persons weakly anchored or loosely committed or attached, psychologically and socially, to the home country, tend to emigrate.

   b. Persons who received government support during study abroad are less likely to emigrate, compared to persons who had no support from the government.

   c. Younger persons, 30 years old or less, are more prone to emigrate than older persons.

   d. Persons who are single are more likely to emigrate than persons who are married; married persons whose families joined them while studying abroad are more prone to emigrate than those whose families are left in the home country.

   e. Persons who obtained a degree or some certificate from abroad are more likely to emigrate than persons who do not have any degree or certificate from an institution abroad.

   f. Persons with established job ties in the Philippines during their study abroad are less likely to emigrate.

2. Migration of U.S.-educated Filipinos is a function of relative valuations of opportunities in the Philippines and U.S.A.:

   a. Persons who perceive little opportunity for themselves in the Philippines are more likely to emigrate.

b. Persons who react negatively to situations in the Philippines or view conditions for advancement in that country unfavorably are more likely to emigrate.

c. Persons who worked in the Philippine government prior to their study abroad tend to perceive greater opportunity in the Philippines, and are thus less likely to emigrate.

3. Anchorage in the Philippines and relative valuations of opportunities in that country compared to the country of destination tend to interact so that it becomes extremely difficult to determine which is a more crucial factor in a person's decision to emigrate. If a person is "high" on one of the attitudinal scales, the power of the other scale to predict migration is somewhat reduced.

4. The findings gave moderate support to the contention that migrants and non-migrants differ in their goals, values and concerns in life. Migrants tend to show more concern for economic and material goals, non-migrants showed more professional interests and non-material concerns.

Based on the findings of this study, a "typical" U.S.-educated Filipino <u>migrant</u> would be:

1. A young person, age between 23 and 32 years old, who was single when he left the Philippines for U.S. study. At present, he could be either married or single. If a married woman, she is likely to have an American husband.

2. A person weakly anchored to the Philippines by reason of his negative attitudes to situations and institutions found there -- except the Filipino family system. He shows little concern about Philippine problems and perceives limited opportunities for himself in that country.

3. A person who was formerly employed in some private firm in the Philippines, who either resigned from his job or went on leave from the job in the Philippines, but not on official time, when he left for U.S. study. He studied in the U.S.A. drawing support from his family or at his own expense by working part-time while studying.

4. A person presently employed in a private firm in states like New York, Illinois, Massachusetts, California and other places in the North Central, Central, or South Central states of the U.S.A. His salary is somewhere within the range of $6,000-$10,000 annually and he is performing work not entirely in his field of specialization.

Similarly, on the basis of the findings of this study a "typical" U.S.-educated Filipino <u>non-migrant</u> would be:

1. An older person, 32-43 years old, married at the time he left for U.S. study, who left his family behind in the Philippines while studying in the U.S.A. He was employed in the Philippine government before he left for U.S. study. He received government support as a student or trainee in the U.S.A. He exhibits a rather high attachment to the Philippines and a sense of commitment to contribute to its improvement and development; he perceives a definite role for himself in the Philippines. While he is critical of the obstacles to the country's development and acknowledges the sparse material rewards that he can possibly receive by working in the Philippines, he tends to overlook these in favor of other satisfactions he thinks he is getting from being in his own country.

2. A person presently employed in a supervisory or executive position, earning a salary from ₱6,000-₱8,000 annually, probably from the Philippine government and located in the metropolitan Manila area.

Conclusion

It is obvious from the discussion previous to this chapter and from the findings presented in Chapters IV through VII, that the outflow of trained persons from developing countries is a phenomenon that will continue to occur so long as the gap -- in terms of economic and professional rewards -- between underdeveloped and developed countries exists. And it seems that there is very little possibility of closing this gap in the foreseeable future. Moreover, so long as certain countries continue to uphold the basic legal or moral right of individuals to decide where they want to live and seek the occupation to which they believe themselves entitled, so long will this movement of persons across national boundaries continue.

There is, therefore, no solution to the so-called "brain drain" problem insofar as actually stopping the flow of trained persons is concerned. There are, however, certain ways of reducing the volume of this flow, and it is here argued that the adoption of these measures is a matter that resides largely in the hands of underdeveloped or developing countries. Their implementation could, however, be facilitated and be made more effective with the assistance of the more affluent countries.

The findings strongly suggest the adoption on a short-term basis of a well considered government program for study overseas of persons carefully selected not only on the basis of their academic competence or professional potential, but also in terms of their attitudes and sense of commitment to the country, their perceived role in the country and other personality traits and personal circumstances.

In addition, the findings suggest the development of long-term programs designed to improve training and education in the developing

nation, to create a favorable climate for research and for the professions, and to restructure employment and occupational mechanisms so that trained talent is properly utilized, justly recognized and adequately rewarded.

It is recognized that this study, in seeking the answers to a limited set of questions, has raised many more. For instance, we still cannot say for sure what are the factors that make up a person's anchorage in his home country. While we have established a negative relationship between anchorage in the home country and migration, we have not determined at what point and how a person becomes anchored to his home country, or in the opposite sense, how a person gets dislodged from his home country. Is dislodgement from one's society a process, and is migration one of the consequences of this process? If dislodgement is a process, is there a way of interrupting it? How and when? Can education help to interrupt this process? On the other hand, does education sometimes serve, unwittingly, to abet the process?

The findings from this study have shown rather consistently that persons educated in public schools in the Philippines tended to score higher on the Anchorage Scale. Not enough data, however, are now available to explain why this is so. It would be worthwhile indeed to probe this result further to find out why public school-educated people appear to be more anchored to the Philippines.

It would be interesting also to further investigate why persons who worked in the Philippine government before they left for U.S. study migrated less than those who worked in the private sector. What are the conditions of private employment in the Philippines? Not much is known about this and it may be useful, for purposes of effecting a program of utilizing trained talent and special skills in the Philippines, to look into this aspect of the Philippine employment scene. It has been observed that one problem of developing countries is not so much the production of more trained talent but the failure of these countries to create the opportunities for its proper utilization.

Hopefully, this study has contributed to a better understanding of why trained persons migrate from an underdeveloped country, like the Philippines, to a developed country like the U.S.A.; who the persons are that are apt to emigrate; what situational or social factors contribute to their propensity to emigrate; and which of these situational or institutional factors may lend themselves to some kind of restructuring or manipulation for the purpose of regulating the flow of trained persons from a developing country, if this be deemed necessary. In addition, it is hoped that this study has opened up more areas for further study that may lead to a broader perspective and an enlightened view of the "brain drain" phenomenon.

BIBLIOGRAPHY

Books:

1. Adams, W. The Brain Drain. The McMillan Co., New York, 1968.

2. Beijer, G., Frijda, N. R., & Wentholt, R. Characteristics of Overseas Migrants. The Hague: Government Printing Office, 1961.

3. Bennet, J., Passin, H. & R. K. McKnight. In Search of Identity. The Japanese Scholars in America and Japan. Minneapolis: University of Minnesota Press, 1958.

4. Caplow, T. The Sociology of Work. Minneapolis: University of Minnesota Press, 1954.

5. Dubois, C. Foreign Students and Higher Education in the United States. Washington, D.C., American Council of Education, 1956.

6. Durkheim, E. The Rules of Sociological Method. Translated by S. Solovay and J. Mueller, edited by G. Gatlin. Illinois: The Free Press, 1938.

7. Edwards, A. L. Techniques of Attitude Scale Construction. New York: Appleton-Century-Crofts, Inc., 1957.

8. Eisenstadts, S. N. The Absorption of Immigrants. A Comparative Study Based Mainly on the Jewish Community in Palestine and the State of Israel. Illinois: The Free Press, 1955.

9. Fishburn, P. C. Decision and Value Theory. New York: John Wiley & Sons, 1964.

10. Harbison, F. & Myers, C. Education, Manpower, and Economic Growth: Strategies of Human Resources Development. McGraw-Hill Book Co., Inc., New York, 1964.

11. Hyman, H. Survey Design and Analysis. Principles, Cases and Procedures. New York: The Free Press, 1965.

12. Institute of Social Research. Using U.S. Training in the Philippines. Ann Arbor, Michigan: University of Michigan, 1959.

13. Krech, D., Crutchfield, R. S. & Ballachey, E. L. Individual in Society. New York: McGraw-Hill Book Co., Inc., 1962.

14. Lazarsfeld, P. & Rosenberg, M. The Language of Social Research. Illinois: The Free Press of Glencoe, 1950.

15. McDonald, F. Educational Psychology (2nd ed.). California: Wadsworth Publishing Co., Inc., 1965.

16. Mehrens, W. A. & Ebel, R. L. Principles of Educational and Psychological Measurement. Illinois: Rand McNally & Co., 1967.

17. Merton, R. & Lazarsfeld, P. (eds.). Continuities in Social Research. Illinois: The Free Press of Glencoe, 1950.

18. Morris, R. T. The Two-Way Mirror. Minneapolis: University of Minnesota Press, 1960.

19. Musgrove, F. The Migratory Elite. London: Heinemann Educational Books, Ltd., 1963.

20. Oppenheim, A. N. Questionnaire Design and Attitude Measurement. New York: Basic Books, Inc., 1966.

21. Rossi, P. H. Why Families Move. A Study in the Scoial Psychology of Urban Residential Mobility. Illinois: The Free Press of Glencoe, 1955.

22. Selltiz, C., Jahoda, M. & Deutsch, M. & Cook, S. Research Methods in Social Relations. Rinehart, Holt, & Winston, 1965.

23. Siegel, S. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Co., Inc., 1956.

24. Stouffer, R. S. Social Research to Test Ideas. Illinois: The Free Press of Glencoe, 1962.

25. Useem, Jr. & Useem, R. H. The Western Educated Man in India. New York: Dryden Press, 1955.

26. Zeisel, H. Say It with Figures. New York: Harper & Brothers Publishers, 1951.

Articles:

27. Awashti, S. P. "An Experiment in Voluntary Repatriation of High Level Technical Manpower." The Economic Weekly. September 18, 1965.

28. Beijer, G. "Selective Migration for and 'Brain Drain' from Latin America." International Migration, Vol. IV, No. 4, 1966, pp. 29-36.

29. Bernal, J. D. "Brain Drain -- Scientific Research in Developing Countries." Scientific World, Vol. X, No. 3, 1966.

30. Bernardino, V. "Integrating Scientific and Technological Manpower Development into the National Economic Program of the Philippines." Paper presented at the National Science & Technology Week Conferences, Manila, December 11, 1965. (mimeo)

31. Chu, G. "Student Expatriation, A Function of Relative Social Support." Institute for Communication Research, Stanford University, 1966. (mimeo)

32. Dedijer, S. "Migration of Scientists." Nature, March 7, 1964.

33. _____. "Why did Daedalus Leave?" Science, 133, June 30, 1961.

34. _____. "Past Brain Gain Policies. A Historical Divertissement." (monograph, 1968).

35. Grubel, H. G. "The Brain Drain: A U.S. Dilemma." Science. December 16, 1966.

36. _____. "Nonreturning Foreign Students and the Cost of Student Exchange." Education and Cultural Exchange. Spring, 1966.

37. Grubel, H. G. & Scott, A. D. "Immigration of Scientists and Engineers to the U.S., 1949-1961." Journal of Political Economy. 74:368, August, 1966.

38. _____. "The International Flow of Human Capital." American Economic Review, Papers & Proceedings, May, 1966.

39. Halpern, B. M. "New Exodus. Israelis' Talent Drain." The Nation, May, 1965.

40. Haussman, C. "When Foreign Students Scholarships are Misused." Saturday Review, August 21, 1965.

41. Henderson, G. "Foreign Students: Exchange or Emigration?" Foreign Service Journal, August 21, 1965.

42. Johnson, H. "The Economics of Brain Drain: The Canadian Case." Minerva, Spring, 1965.

43. Juliano, J. "Technical Obstacles to Scientific Progress in the Philippines." Science Review, Manila, Vol. 6, May-June, 1965.

44. Kannappan, S. "The Brain Drain and Developing Countries." International Labour Review, Vol. 98, No. 1, July, 1968. Reprint No. 15.

45. Khoshkish, A. "Intellectual Migration: A Sociological Approach to Brain Drain." Journal of World History, Vol. 10, November 1, 1966, pp. 178-197.

46. Kidd, C. V. "The Growth of Science and the Distribution of Scientists among the World." Impact, Vol. XIV, November 1, 1964.

47. _____. "Statement of C. Kidd, Executive Secretary, Federal Council of Science and Technology, Office of Science and Technology before the Immigration and Naturalization Subcommittee of Senate Judicial Committee." March 6, 1967. (mimeo).

48. Ladinsky, J. "Occupational Determinants of Geographic Mobility among Professional Workers." American Sociological Review, Vol. 32, No. 2, April 1967, pp. 253-264.

49. Lipset, S. & Bendix, R. "Social Mobility and Occupational Career Patterns." American Journal of Sociology, January, 1952.

50. Litwak, E. "Geographic Mobility and Extended Family Cohesion." American Sociological Review, June, 1960.

51. Mondale, W. "Brain Drain on Poor Nations." New York Times, May 28, 1967, p. E-13.

52. Moravcsik, M. "Some Practical Suggestions for the Improvement of Science in Developing Countries." Minerva, Vol. IV, No. 3, Spring, 1966.

53. Naficy, H. "The Brain Drain: The Case of Iranian Non-Returning Students." Embassy of Iran, Washington, D.C. A report presented at the Annual Conference of the Society for International Development. New York, March 17, 1966.

54. Oteiza, E. "Emigration of Engineers from Argentina: A case of Latin American Brain Drain." International Labour Review, Vol. 92, No. 6, December, 1965.

55. Perkins, J. A. "Foreign Aid and the Brain Drain." Foreign Affairs, July, 1966.

56. Platt, J. B. "Emigration of Scholars and the Development of Taiwan. A Chinese-American Cooperation." Development Digest, Vol. IV, April, 1966.

57. Reiss, A., Jr. "Occupational Mobility of Professional Workers." American Sociological Review, December 20, 1955.

58. Riquelme Perez, J. & Gutierrez, S. "La-Emigracion de Recursos Humanos Chilenos de Alto Nivel a Los Estados Unidos." Ciencia Interamericana, Vol. 6, No. 2, Marzo-Abril, 1965.

59. Rose, A. M. "Distance of Migration and Socioeconomic Status." American Sociological Review, August 23, 1958.

60. Salam, A. "The Isolation of Scientists in Developing Countries." Minerva, Vol. IV, No. 4, Summer, 1966.

61. Scully, T. J. "Is the Door Open Again? A Survey of our New Immigration Law." UCLA Law Review, January, 1966.

62. Shearer, J. C. "Intra- & International Movements of High Level Resources" (draft paper). Institute for Research on Human Resources. Pennsylvania State University, December, 1965. (mimeograph).

63. Shearer, J. C. "In Defense of Traditional Views of the 'Brain Drain' Problem." International Educational & Cultural Exchange, Fall, 1966.

64. Tausky, C. & Dubin, R. "Career Anchorage: Managerial Mobility Motivations." American Sociological Review, October 5, 1965, pp. 725-735.

65. Thomas, B. "Trends in the International Migration of Skilled Manpower." Migration, Vol. I, No. 3, July-September, 1961.

66. West, K. M. "Foreign Interns and Residents in the U.S." Journal of Medical Education, December, 1965.

Documents:

67. Congressional Digest. Washington, D.C., Vol. 44, No. 5, May, 1965.

68. Council on International Education and Cultural Affairs. The International Migration of Talent and Skills. Proceedings from a Workshop and Conference, October, 1966 (edited by A. Gollin). Distributed by the Bureau of Cultural Affairs, Department of State, Washington, D.C., 1966.

69. Council on International Education. Interagency Task Force. "The Problem of the Non-Returning Exchange Vistior." CEC Paper No. 10, April 23, 1965. Bureau of Education and Cultural Affairs, Department of State, Washington, D.C., 1965.

70. Kidd, C. V. "The Loss of Scientists from Less to More Developed Countries." U.S.-AID Papers prepared for the U.N. Conference on the Application of Science and Technology for the less Developed Areas, Vol. 9, Washington, D.C., 1962.

71. Mondale, W. F. "The Brain Drain from Developing Countries." Congressional Record, 89th Congress, 2nd. Session, Vol. 112, August 31, 1966.

72. OECD. Policy Conference on Economic Growth and Investment in Education. International Flow of Students. 1962.

73. Pan American Health Organization. Migration of Health Personnel, Scientists, and Engineers from Latin America. Washington, D.C., Scientific Publications 142, September, 1966.

74. Royal Society. "The Emigration of Scientists from the U.K." A report of the Committee appointed by the Royal Society of London, 1963.

75. United Nations. Economic and Social Council. Development and Utilization of Human Resources, 2nd Report of the Secretary General, 4th Session, E/4483/April, 1968.

76. _____. _____. Development and Utilization of Human Resources. Outflow of Trained Personnel from Developing Countries. 2nd report of the Secretary General, Addendum, 2/4483/Add. 1, June, 1968.

77. _____. _____. Development and Utilization of Human Resources. Outflow of Trained Personnel from Developing Countries. 2nd report of the Secretary General, E/4483/Add. 2, November, 1968.

78. U.S. Congress. House of Representatives. International Education: Past, Present, Problems and Prospects. 89th Congress, 2nd Session, Prepared by the Task Force on International Education and Labor, House Document No. 597, October, 1966.

79. _____. _____. The Brain Drain into the United States of Scientists, Engineers, and Physicians. A Staff Study of the Research and Technical Programs Subcommittee of the Committee on Government Operations. 90th Congress, 1st Session, U.S. Government Printing Office, Washington, D.C., 1967.

80. _____. _____. The Brain Drain of Scientists, Engineers, and Physicians from Developing Countries. Hearing before a Subcommittee of the Committee on Government Operations. 90th Congress, 2nd Session, U.S. Government Office, January, 1968.

81. _____. _____. Scientific Brain Drain from Developing Countries. 90th Congress, 2nd Session, 23rd Report of the Committee on Government Operations, U.S. Government Printing Office, March 28, 1968.

82. U.S. National Science Foundation. Review of Data on Science Resources, Vol. 1, No. 5, July, 1965.

83. _____. Scientific Manpower from Abroad, United States Scientists and Engineers of Foreign Birth and Training. Washington, D.C., 1962.

84. _____. The National Register of Scientific and Technical Personnel. A program of the Division of Scientific Personnel and Education, U.S. Government Printing Office, 1960.

85. _____. "Scientists and Engineers from Abroad, Fiscal Years 1962-1963." Review of Data on Science Resources, July, 1965.

Periodicals, Journals & Miscellaneous:

86. Annals of the American Academy of Political and Social Sciences. "The New Immigration. Information Concerning Trends in Legislation on Immigration to the U.S.A." Vol. 367, September, 1966.

87. Education and World Affairs. "Proposal for a Study of International Migration of Talent." May, 1967 (mimeographed).

88. Education and World Affairs. Press Release, January 9, 1967 (mimeographed copy from the files of E. Staley).

89. Financial Post. "Our Plan for the Big Skill Hunt: Double the Number of Immigrants." 59:10, July 3, 1965.

90. Americas. "Latin American Brain Drain: Emigration of Trained Personnel to the U.S." 18:40-41, April, 1966.

91. New York Times. "Pro and Con on International Exchanges." Section E., December 18, 1966, p. 26.

92. The Economist. "Are Scientists Ever Lost?" February 23, 1963.

93. Committee on Educational Interchange Policy. "The Foreign Student: Exchange or Immigrants?" May, 1956.

94. The Times. "Vast U.S. Import of Human Capital May Equal Her Foreign Aid." April 11, 1967.

95. Hunter, G. "Two-Way Movement of World Skills." The Times, July, 1965.

96. Prugh, P. "Lure of America: More Foreigners Stay after U.S. Schooling. Homeland Fears Effect." Wall Street Journal. CLXVIII No. 160, November 21, 1966.

Unpublished Materials:

97. Cohen, L. Internal Migration of Scientists Awarded Doctorates in the United States in 1958 (unpublished Ph.D. dissertation, Purdue University, 1963).

98. Myers, R. G. Study Abroad and the Migration of Human Resources (unpublished Ph.D. dissertation, University of Chicago, 1967).

99. Wilson, J. The Depletion of National Resources of Human Talent in the United Kingdom: A Special Aspect of Migration on North America, 1952-1964 (unpublished Ph.D. dissertation, The Queen's University, Belfast, 1964).

100. Young, R. L. Study Abroad and National Purpose in the Middle East (unpublished Ph.D. dissertation, Stanford University, 1965).

APPENDIX A

Type 1 Questionnaire

I.

QUESTIONNAIRE

KINDLY read before you begin -

GENERAL INSTRUCTIONS

1. Please answer every question, unless you are specifically instructed that the question does not apply to you.

2. When answering simple recall or factual questions, with a number of alternative answers, choose the statement that comes closest to your personal circumstances, even if it does not accurately describe your situation.

3. When answering questions that call for your opinion or judgment, choose the answer that fits your opinion the best. If you should have some doubt about any of them, choose the answer that is closest to your general feeling about the statement.

4. Kindly use the extra sheets provided at the back of this questionnaire, in case the space provided for your answer to open-ended questions is not adequate.

5. If you have been to the U.S.A. more than once for study or training, please answer the questions on the basis of your most recent study sojourn in the U.S.A.

1. PLEASE fill in the box below:

a. Name of educational/ training institution(s) attended in the U.S.A.	b. Field of specialization	c. Degree completed	d. Year
Example: Indiana U.	Educational Psychology	Education Degree	1961-64
New York U.	Psychology	None	1957-58

2. Here are some reasons that most foreign students in American universities mention as being important in their decision to study in the U.S.A. CHECK the appropriate row and column to show how important each of these was to you.

	Very Important	Important	Somewhat Important	Not Important
a. To gain advanced training in my field				
b. To improve my chances of getting a good job in the Philippines				
c. To improve my chances of getting a good job in the U.S.A.				
d. To know more about the U.S.A.				
e. Others: Kindly specify				

3. What was your source of support as a student in the U.S.A.? CIRCLE your answer(s).
   a. Government scholarship
   b. Privately-sponsored scholarship
   c. Family
   d. Self-supporting, i.e., working part-time
   e. Others? What? _____

   If on scholarship, kindly give the name of your sponsor _____

4. What was the duration of your studies? CIRCLE ONE.
   a. Not more than one year
   b. Over one year but not more than 2 years
   c. Over 2 years but not more than 3 years
   d. Over 3 years but not more than 4 years
   e. Over 4 years but not more than 5 years
   f. Over 5 years

5. Suppose you are asked to assess the chances for advancement in the Philippines of a young Filipino who is planning to go into your field of specialization, which of the following would best approximate your answer? CIRCLE ONE.
   a. Very good
   b. Good
   c. Uncertain
   d. Little
   e. Very little

6. Were you eager to return to the Philippines at the end of your U.S. studies? CIRCLE ONE.
   a. Very much
   b. Much
   c. Uncertain
   d. Somewhat
   e. Not at all
   PLEASE explain your answer to #6 _____

7. Did you return immediately to the Philippines after your U.S. studies? CIRCLE ONE.
   a. Yes
   b. No IF "No," why _____

8. Did you have a job in the Philippines before you left for study in the U.S.A.? CIRCLE ONE.
   a. Yes
   b. No
   IF YOUR ANSWER TO #8 IS "YES," please answer #9 and #10, then proceed to #11.
   IF YOUR ANSWER TO #8 IS "NO," please skip #9 and #10, and proceed immediately to #11.

9. What kind of job did you have before you left for U.S. studies? CIRCLE ONE.
   a. Government job
   b. A job in a private agency
   c. A job in a family enterprise
   d. Self-employed
   e. Others? Kindly specify _____

10. Did you resign or take a leave of absence from your job when you left for U.S. study? CIRCLE ONE.
    a. Resigned
    b. Took a leave of absence
    c. On special detail
    d. Others? Please specify _____

11. How long did you have to wait until you got your first job after your U.S. studies? CIRCLE ONE.
    a. Less than 3 months
    b. More than 3 months but not more than 6 months
    c. More than 6 months but not more than 1 year
    d. More than one year

12. Did you have any problem getting a job after your U.S. studies? CIRCLE ONE.
    a. Yes
    b. No

    If "Yes," was your major problem any of the following? CIRCLE ONE.

    a. Limited openings in my field of specialization
    b. Unacceptable salary offered
    c. Jobs offered were concerned with work I did not care for
    d. No proper connections in the agencies where I desired to work
    e. Absolutely no job openings suitable to my training and specialization
    f. None of the above, but something else? Kindly specify _____

13. What kind of job did you want to have after your U.S. studies? CIRCLE ONE.
    a. Managerial or administrative work
    b. Teaching
    c. Research and development
    d. Professional practice, either on your own or with others
    e. None of the above, but something else? What? _____

14. How much did you think, then, was your chance of getting the kind of job you wanted (referring to your answer to #13) in the Philippines? CIRCLE ONE.
    a. Very much
    b. Much
    c. Didn't know
    d. Little
    e. Very little

15. In your own opinion, would you say that in the long run, a person with your experience and educational qualifications will be better off, economically, in the Philippines than in the U.S.A.? CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

16. What kind(s) of job are you doing at present? CIRCLE as many as as apply to you.
    a. Research and development
    b. Teaching
    c. Managerial or administrative work
    d. Others? Kindly specify _____

17. Which of the jobs you circled in #16, takes more than 50% of your working hours? _____ Where? _____
    Name and address of agency _____

18. Which of the following approximates your salary range before you left for U.S. study and now? CHECK the appropriate row and column. (Kindly indicate if in pesos or dollars by writing ₱ or $ after each check.)

		Before U.S. Study	Now
a.	Not over 2,000 annually		
b.	Over 2,000 but not over 4,000 annually		
c.	Over 4,000 but not over 6,000 annually		
d.	Over 6,000 but not over 8,000 annually		
e.	Over 8,000 but not over 10,000 annually		
f.	Over 10,000 but not over 20,000 annually		
g.	Over 20,000 but not over 30,000 annually		
h.	Over 30,000 annually		

19. What is it about your present job that you dislike? _____; that you like? _____

20. Would you say that your satisfaction is greater than your dissatisfaction from the job that you now have? CIRCLE ONE.
    a. Very much
    b. Much
    c. About the same
    d. Less
    e. Much less

21. A Filipino with your educational qualifications, will be better off, in terms of social prestige and status in a foreign country like the U.S.A., than in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

22. What do you think are the reasons why Filipinos in your profession or field of specialization choose to live and work in the U.S.A.? Mention as many as you can think of in the order of their importance.

23. What makes Filipinos who studied in the U.S.A. want to return to the Philippines after their training or study? Mention as many reasons or factors that you know.

24. Which of the reasons you gave for #22 and #23, would you personally give the heaviest weight if you find yourself in a situation where you are considering the alternatives of either remaining in the Philippines or migrating to the U.S.A.? _____
_____

25. In your own experience, which of the following influenced your return to the Philippines after your U.S. studies? CIRCLE as many as apply to you but add a CHECK to the most important.
    a. Inability to get the job desired in the U.S.A.
    b. Visa problem
    c. Official or business commitment in the Philippines (Example: contract to return to a job)
    d. Purely personal reasons (Example: homesickness, betrothed to someone in the Philippines, inability to adjust to American culture, etc.) Kindly specify _____
    _____
    e. Desire to serve my country and people
    f. Others? Please specify _____

26. A person with your educational qualifications and ability will find it easier to gain professional recognition in the Philippines than in a foreign country, like the U.S.A. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

27. Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A. How do you feel about this? CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

28. Of course, we all want these things, but which would influence you most in the choice of a job? CIRCLE AS MANY AS APPLY TO YOU and number them in the order of their importance to you. (Example: 1-(b); 2-(f); 3-(c); etc.).
    a. High salary
    b. A challenging job that allows full expression to my talent or creativity
    c. Congenial co-workers
    d. Opportunities to rise in the organization on my own merit
    e. Modern working conditions and facilities
    f. Economic security for myself and my family
    g. Opportunity to serve and be useful to society
    h. A job that will give me great prestige and status
    i. Others? Kindly specify _____

29. In this day and age, it is not who you are but what you know that matters in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

30. Getting recognized on one's own merit is something that does not exist in Philippine society. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

31. Who are the members of your family to whom you feel an obligation to assist in normal times? CIRCLE AS MANY AS APPLY TO YOU.
    a. Parents (father and mother)
    b. Sons/daughters
    c. Grandparents
    d. Aunts/uncles
    e. Nephews/nieces
    f. Cousins
    g. Others? Who? _____

32. Are any of them (referring to your answers to #31) residing in the U.S.A.? CIRCLE ONE.
    a. Yes
    b. No

    IF "yes," kindly indicate who they are by writing the letter(s) corresponding to the list in #31. (Example: b, if you have a son or daughter residing in the U.S.A.) Do you have other close relatives residing in the U.S.A.?
    a. Yes
    b. No

33. All advantages and disadvantages considered, I would prefer the Filipino family system over all others that I know. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

34. Which of the following best describes your father's main occupation? CIRCLE ONE. (If your father is retired, circle his occupation at the time of his retirement; if deceased, circle his occupation when still living.)

a. Doing work, requiring advanced training beyond a college degree
   a.1 - self-employed
   a.2 - employed
b. Farmer, who cultivates his own land
c. Farmer, but does not own the land he cultivates
d. Doing work requiring a college degree or its equivalent
   d.1 - self-employed
   d.2 - employed
e. Doing work requiring less than a college degree
f. Owner or co-owner of extensive commercial lands, (not less than 100 ha.) big business, i.e., engaged in import-export, manufacturing, transportation business, etc., of regional or nationwide scope
g. Owner or co-owner of commercial lands, business, etc. but not as extensive as (f)
h. Unskilled worker or laborer, doing work requiring no training
i. Skilled or semi-skilled worker, requiring some training
j. Others? Kindly specify _____

35. Please give the exact title of your father's occupation. (Example: salesman, electrician, lawyer, political office holder, civil service employee, etc.) _____

36. What is (was) your parents' educational attainment? CHECK the appropriate row and column.

		Mother	Father
a.	Some elementary schooling		
b.	Elementary school graduate		
c.	Some high school		
d.	High school graduate		
e.	Some college		
f.	College graduate		
g.	More than college graduate		
h.	None of the above		

37. Considering Philippine standards, how would you classify your family? CIRCLE ONE.

a. Wealthy
b. Upper middle class
c. Middle class
d. Lower middle class

38. Which of these do you own or expect to inherit in the Philippines? CIRCLE AS MANY AS APPLY TO YOU.
    a. Land and/or any piece of real estate
    b. Business interests or holdings
    c. Some kind of a professional venture, e.g., law firm, clinic, etc.
    d. Others? Kindly specify _____
    e. None

39. What is the standard of living generally attained by a person of your educational qualifications in the Philippines? CIRCLE ONE.
    a. Well-off
    b. Above average
    c. Average
    d. Below average
    e. Uncertain

40. "I believe that my U.S. training is wasted in the Philippines." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

41. How many of the Filipinos that you know, who have gone to the U.S.A. for study/training have stayed on or are now residents there? CIRCLE ONE.
    a. Almost all
    b. More than half
    c. Less than half
    d. Few
    e. None

42. "My U.S. experience has taught me to value the Philippines more." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

NOW, let's turn to some more questions about yourself, about the Philippines and about your thinking regarding the role that highly-educated Filipinos, like yourself, can take, in order to speed Philippine development.

43. What schools in the Philippines did you attend? CHECK the appropriate row and column that describes the school you attended and kindly supply the needed information:

Educational level	Name of School	Ownership: Public	Ownership: Private	Degree & year completed
a. Elementary				
b. Secondary				
c. College/ University				

44. What was your main source of support as a college student in the Philippines? CIRCLE ONE.
   a. Family
   b. Scholarship (Please specify the name of your sponsor) _____
   c. Self-supporting
   d. Others? Kindly specify _____

45. How would you rank yourself when you graduated from college? CIRCLE ONE.
   a. Upper 25% of my graduating class
   b. Within the top 50% of my graduating class
   c. Within the top 75% of my graduating class
   d. Below the top 75% of my graduating class

46. What honors/awards did you receive in college or university? (If none, please write "None.") _____
_____

47. Do you agree that you have a greater obligation than those who have less education to contribute to your country's development? CIRCLE ONE.
   a. Strongly agree
   b. Agree
   c. Uncertain
   d. Disagree
   e. Strongly disagree

48. As one who has gone through the Philippine school system, which aspect of the system do you think is weakest? CIRCLE ONE.
    a. Teachers
    b. Teacher-training
    c. Curriculum
    d. Administrative set-up
    e. Textbooks, laboratories, library facilities
    f. Others? What? _____

    In your opinion, which level of the educational system needs to be attended first by the authorities concerned? (Example: secondary level) _____

49. What organization(s) in the Philippines were you a member of at the time you left for U.S. studies. CIRCLE AS MANY AS APPLY TO YOU.
    a. Civic clubs
    b. Social, athletic, or recreational organizations
    c. Political organizations
    d. Professional organizations
    e. Business organizations
    f. School/university alumni organizations
    g. Others? What? _____
    h. None

50. Were you an officer at one time or other in these organizations? CIRCLE ONE.
    a. Yes
    b. No

51. What organization(s) are you a member of at present? Please write the letter corresponding to the organization as listed in #49 and indicate whether in the Philippines or elsewhere. _____
    _____

52. Is there or has there been any problem in the Philippines of national importance that you want (wanted) to do something about? CIRCLE ONE.
    a. Yes
    b. No

    If "yes," kindly mention what this problem is _____
    _____

53. Nepotism and corruption are part and parcel of the Filipino way of life. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

54. There is nothing anyone can do to stop or even minimize nepotism and corruption in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

55. What, in your own experience, are -
    a. the sources of greatest frustration and dissatisfaction of individuals in your profession in the Philippines?

    _____
    _____

    b. the sources of satisfaction, if any? _____
    _____
    _____

56. There is room at the top for any individual who is hard-working and truly competent in his profession in the Philippines.
CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

57. What have you observed are the surest ways of getting ahead in the Philippines? CIRCLE TWO.
    a. To be a member of a rich family
    b. To be well educated
    c. To have influential friends and relatives in government and industry.
    d. Ability and hard work in one's line of specialization
    e. Something else? Kindly specify _____

58. All things being equal, it is easier for a Filipino to rise to an executive position in the U.S.A. than in the Philippines.
CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

59. All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

60. How old were you when you left for U.S. studies? CIRCLE your answer. (If you have been in the U.S.A. more than once, for training or study, please circle your age the first time, second time, etc., that you have gone to the U.S.A. Example: If you were less than 25 years old the first tiime, then CIRCLE (a) and write "first time" after the statement.
    a. 25 years old or less
    b. Over 25 years but not more than 30 years old
    c. Over 30 years but not more than 35 years old
    d. Over 35 years but not more than 40 years old
    e. Over 40 years but not more than 45 years old
    f. Over 45 years but not more than 50 years old
    g. Over 50 years old

61. When and where were you born? Date of birth _____
    Place of birth _____

62. Comparing yourself with Filipino friends and colleagues who are now residents of the U.S.A., would you say that you are -- CIRCLE ONE.
    a. Better off, in every sense of the word
    b. Better off, only in some respects
    c. About the same
    d. Less well off
    e. Worse off
    IF your answer to #62 is (b) will you kindly explain? _____
    _____

63. The Philippines will remain a poor country, unless Filipinos become completely Westernized. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

64. "I do not think I can live for a long time in a foreign country away from my family and the way of life I have been used to in the Philippines." CIRCLE ONE.
   a. Strongly agree
   b. Agree
   c. Uncertain
   d. Disagree
   e. Strongly disagree

65. Generally speaking, each one of us feels certain things are quite important. What do you personally consider important in life? Kindly list them down in the order of their importance to you.

66. One's loyalty to his country ends where loyalty to himself and his family begins. CIRCLE ONE.
   a. Strongly agree
   b. Agree
   c. Uncertain
   d. Disagree
   e. Strongly disagree

67. What is your civil status? CIRCLE ONE.
   a. Single
   b. Married
   c. Widow/widower
   d. Separated/divorced

   If your answer to #67 is b, c, or d, kindly answer the following:

   67.1 Year of marriage _____
   67.2 Citizenship of spouse _____
   67.3 Number of children _____
   67.4 If married at the time of U.S. study, did your family join you in the U.S.A.? CIRCLE.
      a. Yes
      b. No

68. What is your sex? CIRCLE your answer.
   a. Male
   b. Female

69. Of what country are you a citizen of? CIRCLE ONE.
   a. Philippines
   b. U.S.A.
   c. Others? Kindly specify _____

70. Where have you resided longest in the Philippines? _____

71. Have you, at any point in your life, considered emigrating to another country? CIRCLE ONE.
    a. Yes
    b. No
    If "yes," kindly mention what kept you or what is keeping you from carrying out your desire to emigrate. _____
    _____

72. Would you care to give any remarks or suggestions as to how the Philippines can attract and involve highly educated and ambitious Filipinos, like yourself, in the country's (Philippines) development projects?

HAVE YOU ANSWERED ALL QUESTIONS?
Please go over the questionnaire again
to check if you missed answering any.

Thank you very much for your help!

4-15-68

APPENDIX B

Type II Questionnaire

SCHOOL OF EDUCATION
STANFORD UNIVERSITY
STANFORD, CALIFORNIA, U.S.A. 94305
Cable Address: SIDEC, Stanford

Stanford International Development Education Center (SIDEC)

Dear

This is an appeal for your kind help and participation in a research study that I am conducting in connection with my doctoral thesis in education here at Stanford University. The study is under the auspices of the Stanford International Development Education Center (SIDEC), Stanford University.

The study seeks to identify and specify the factors associated with the exodus of scientists, engineers, and other professionals from poor to rich countries, with the Philippines as the focus of this investigation.

Your name was drawn by stratified random sampling from a list of Filipinos issued passports for study or training in the USA during the years from 1960 to 1965. This list was obtained from the Department of Foreign Affairs, Republic of the Philippines, through the invaluable assistance of the National Science Development Board, Manila. Your family/friends/employer in the Philippines were most generous in supplying me with your US address.

As the first and most important step in this study, I am sending you herewith a self-administered questionnaire which I am earnestly requesting you to fill in. Please note that the questionnaire is not a test of knowledge or competence in any field. There are no right or wrong answers to the questions posed. The questionnaire is a combination of simple recall or factual questions and subjective statements for which all that is needed is your honest opinion. So please answer every question in terms of your knowledge, feelings, judgment, experience, and personal circumstances, as the case may be.

Inasmuch as this study is interested only in aggregate answers to each question, you need not identify yourself in the questionnaire. All information gathered by this study will be treated as strictly confidential and used only for the purpose stated above. In order, however, for this questionnaire to be of value, it is very important that no question be left unanswered.

It is recognized that completing this questionnaire will take at least one hour of your precious time. Relying however on your goodwill and dynamic interest in contemporary issues, of which this study is one, I trust that you will find time to give me your most valuable cooperation by completing this questionnaire. Perhaps, if it would not be too much of an imposition, you would be willing to share your views further on this topic in an interview, at your convenience, about which I shall contact you at a later date.

In return for your participation in this study, you will receive a copy of the resumé of the findings or results of this investigation, which I hope will be ready on or before June 1969.

I shall greatly appreciate your sending back the completed questionnaire in the enclosed addressed stamped envelope, preferably not later than one week after receiving it.

Maraming salamat po!

Cordially,

Josefina R. Cortes

(Miss) Josefina R. Cortes

JRC:cd

Enclosure

Social Research Questionnaire

on U.S. Educated/Trained Filipinos

(1960 - 1965)

Under the auspices of:

Stanford International
Development Education Center
School of Education
Stanford University

1968

QUESTIONNAIRE

KINDLY read before you begin -

GENERAL INSTRUCTIONS

1. Please answer every question, unless you are specifically instructed that the question does not apply to you.

2. When answering simple recall or factual questions, with a number of alternative answers, choose the statement that comes closest to your personal circumstances, even if it does not accurately describe your situation.

3. When answering questions that call for your opinion or judgment, choose the answer that fits your opinion the best. If you should have some doubt about any of them, choose the answer that is closest to your general feeling about the statement.

4. Kindly use the extra sheets provided at the back of your questionnaire, in case the space provided for your answer to open-ended questions is not adequate.

5. If you have been to the U.S.A. more than once for study or retraining, please answer the questions on the basis of your most recent study sojourn to the U.S.A.

1. PLEASE fill in the box below:

a. Name of educational/ training institution(s) attended in the U.S.A.	b. Field of specialization	c. Degree completed	d. Year
Example: Indiana U.	Educational Psychology	Education Degree	1961-64
New York U.	Psychology	None	1957-58

2. Here are some reasons that most foreign students in American universities mention as being important in their decision to study in the U.S.A. CHECK the appropriate row and column to show how important each of these was to you.

	Very Important	Important	Somewhat Important	Not Important
a. To gain advanced training in my field				
b. To improve my chances of getting a good job in the Philippines				
c. To improve my chances of getting a good job in the U.S.A.				
d. To know more about the U.S.A.				
e. Others: Kindly specify				

3. What was your source of support as a student in the U.S.A.? CIRCLE your answer(s).
   a. Government scholarship
   b. Privately-sponsored scholarship
   c. Family
   d. Self-supporting, i.e., working part-time
   e. Others? What? _____

   If on scholarship, kindly give the name of your sponsor.

   _____

4. What was the duration of your studies? CIRCLE ONE.
   a. Not more than one year
   b. Over one year but not more than 2 years
   c. Over 2 years but not more than 3 years
   d. Over 3 years but not more than 4 years
   e. Over 4 years but not more than 5 years
   f. Over 5 years

5. Suppose you are asked to assess the chances for advancement in the Philippines of a young Filipino who is planning to go into your field of specialization. Which of the following would best approximate your answer? CIRCLE ONE.
   a. Very good
   b. Good
   c. Uncertain
   d. Little
   e. Very little

6. Were you eager to return to the Philippines at the end of your U.S. studies? CIRCLE ONE.
   a. Very much
   b. Much
   c. Uncertain
   d. Somewhat
   e. Not at all

   PLEASE explain your answer to #6. _____
   _____

7. Did you return immediately to the Philippines after your U.S. studies? CIRCLE ONE.
   a. Yes
   b. No IF "No," why? _____
   _____

8. Did you have a job in the Philippines before you left for study in the U.S.A.? CIRCLE ONE.
   a. Yes
   b. No

   IF YOUR ANSWER TO #8 IS "YES," please answer #9 and #10, then proceed to #11.
   IF YOUR ANSWER TO #8 IS "NO," please skip #9 and #10, and proceed immediately to #11.

9. What kind of job did you have before you left for U.S. studies? CIRCLE ONE.
   a. Government job
   b. A job in a private agency
   c. A job in a family enterprise
   d. Self-employed
   e. Others? Kindly specify. _____

10. Did you resign or take a leave of absence from your job when you left for U.S. study? CIRCLE ONE.
   a. Resigned
   b. Took a leave of absence
   c. On special detail
   d. Others? Please specify. _____

11. How long did you have to wait until you got your first job after your U.S. studies? CIRCLE ONE.
   a. Less than 3 months
   b. More than 3 months but not more than 6 months
   c. More than 6 months but not more than 1 year
   d. More than one year

12. Did you have any problem getting a job after your U.S. studies? CIRCLE ONE.
   a. Yes
   b. No

   If "YES," was your major problem any of the following? CIRCLE ONE.
   a. Limited openings in my field of specialization
   b. Unacceptable salary offered
   c. Jobs offered were concerned with work I did not care for
   d. No proper connections in the agencies I desired to work
   e. Absolutely no job openings suitable to my training and specialization
   f. None of the above, but something else? Kindly specify.
   _____

13. What kind of job did you like to have after your U.S. studies? CIRCLE ONE.
   a. Managerial or administrative work
   b. Teaching
   c. Research and development
   d. Professional practice, either on your own or with others
   e. None of the above, but something else? What? _____
   _____

14. How much did you think, then, was your chances of getting the kind of job you wanted (referring to your answer to #13) in the Philippines? CIRCLE ONE.
    a. Very much
    b. Much
    c. Didn't know
    d. Little
    e. Very little

15. In your own opinion, would you say that in the long run, a person with your experience and education qualifications will be better off, economically, in the Philippines than in the U.S.A.? CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

16. What kind(s) of job are you doing at present? CIRCLE as many as apply to you.
    a. Research and development
    b. Teaching
    c. Managerial or administrative work
    d. Others? Kindly specify. _____

17. Which of the jobs you circled in #16 takes more than 50% of your working hours? _____ Where? _____
    Name and address of agency _____

18. Which of the following approximates your salary range before you left for U.S. study and now? CHECK the appropriate row and column. (Kindly indicate if in pesos or dollars by writing P or $ after each check)

		Before U.S. study	Now
a.	Not over 2,000 annually		
b.	Over 2,000 but not over 4,000 annually		
c.	Over 4,000 but not over 6,000 annually		
d.	Over 6,000 but not over 8,000 annually		
e.	Over 8,000 but not over 10,000 annually		
f.	Over 10,000 but not over 20,000 annually		
g.	Over 20,000 but not over 30,000 annually		
h.	Over 30,000 annually		

19. What is it about your present job that you dislike? _____

_____

that you like? _____

_____

_____

20. Would you say that your satisfaction is greater than your dissatisfaction from the job that you now have? CIRCLE ONE.
    a. Very much
    b. Much
    c. About the same
    d. Less
    e. Much less

21. A Filipino with your educational qualifications will be better off, in terms of social prestige and status, in a foreign country like the U.S.A. than in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

22. What do you think are the reasons why Filipinos in your profession or field of specialization choose to live and work in the U.S.A.? Mention as many as you can think of in the order of their importance.

23. What makes Filipinos who studied in the U.S.A. want to return to the Philippines after their training or study? Mention as many reasons or factors that you know.

24. Which of the reasons you gave for #22 and #23 would you personally give the heaviest weight if you find yourself in a situation where you are considering the alternatives of either remaining in the Philippines or migrating to the U.S.A.? _____

_____

_____

25. In your own experience, which of the following influenced your decision to work and live in the U.S.A.? CIRCLE as many as apply to you but add a CHECK to the most important.

    a. Dissatisfaction with conditions in the Philippines
    b. U.S. attraction in terms of jobs available, high salary, standard of living, professional opportunities, etc.
    c. Unique personal circumstances (Example: My family moved to the U.S.A., I married an American citizen, etc.)
    d. Purely personal reasons, like love for adventure, desire for independence and freedom from my family, etc.)
    e. Others? Please specify. _____

_____

26. Whatever answer you gave to #25, please explain your answer by pointing out what particular situation, event, or condition influenced your decision. For example, if you circled (a), an explanation may be -- "lack of employment opportunities in my field, or too much nepotism in the office where I worked."

_____

_____

27. A person with your educational qualifications and ability will find it easier to gain professional recognition in the Philippines than in a foreign country, like the U.S.A. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

28. Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A. How do you feel about this? CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

29. Of course, we all want these things, but which would influence you most in the choice of a job? CIRCLE AS MANY AS APPLY TO YOU and number them in order of their importance to you. (Example: 1-(b); 2-(f); 3-(c), etc.)
    a. High salary
    b. A challenging job that allows full expression to my talent or creativity
    c. Congenial co-workers
    d. Opportunity to rise in the organization on my own merit
    e. Modern working conditions and facilities
    f. Economic security for myself and my family
    g. Opportunity to serve and be useful to society
    h. A job that will give me great prestige and status
    i. Others? Kindly specify. _____

    _____

30. In this day and age, it is not who you are but what you know that matters in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

31. Getting recognized on one's own merit is something that does not exist in Philippine society. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

32. Who are the members of your family to whom you feel an obligation to assist in normal times? CIRCLE AS MANY AS APPLY TO YOU.
    a. Parents (father and mother)
    b. Sons/daughters
    c. Grandparents
    d. Aunts/uncles
    e. Nephews/neices
    f. Cousins
    g. Others? Who? _____

33. Are any of them (referring to your answers to #32) residing in the U.S.A.? CIRCLE ONE.
    a. Yes
    b. No

    IF "yes," kindly indicate who they are by writing the letter(s) corresponding to the list in #32. (Example: b, if you have a son or daughter residing in the U.S.A.) _____

34. "All advantages and disadvantages considered, I would prefer the Filipino family system over all others that I know." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

35. Which of the following best describes your father's main occupation? CIRCLE ONE. (If your father is retired, circle his occupation at the time of his retirement; if deceased, circle his occupation when still living.)

a. Doing work, requiring advanced training beyond a college degree
   a.1 - self-employed
   a.2 - employed
b. Farmer, who cultivates his own land
c. Farmer, but does not own the land he cultivates
d. Doing work requiring a college degree or its equivalent
   d.1 - self-employed
   d.2 - employed
e. Doing work requiring less than a college degree
f. Owner or co-owner of extensive commercial lands (not less than 100 ha.), big business, i.e., engaged in import-export, manufacturing, transportation business, etc., of regional or nationwide scope
g. Owner or co-owner of commercial lands, business, etc., but not as extensive as (f)
h. Unskilled worker or laborer, doing work requiring no training
i. Skilled or semi-skilled worker, requiring some training
j. Others? Kindly specify. _____

_____

36. Please give the exact title of your father's occupation. (Example: salesman, electrician, lawyer, political office holder, civil service employee, etc.) _____

_____

37. What is (was) your parents' educational attainment? CHECK the appropriate row and column.

		Mother	Father
a.	Some elementary schooling		
b.	Elementary school graduate		
c.	Some high school		
d.	High school graduate		
e.	Some college		
f.	College graduate		
g.	More than college graduate		
h.	None of the above		

38. Considering Philippine standards, how would you classify your family? CIRCLE ONE.

a. Wealthy
b. Upper middle class
c. Middle class
d. Lower middle class

39. Which of these do you own or expect to inherit in the Philippines? CIRCLE AS MANY AS APPLY TO YOU.
    a. Land and/or any piece of real estate
    b. Business interests or holdings
    c. Some kind of a professional venture, e.g., law firm, clinic, etc.
    d. Others: Kindly specify. _____
    _____
    e. None

40. What is the standard of living generally attained by a person of your educational qualifications in the Philippines? CIRCLE ONE.
    a. Well-off
    b. Above average
    c. Average
    d. Below average
    e. Uncertain

41. "I believe that my U.S. training will be wasted in the Philippines." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

42. How many of the Filipinos that you know who have come to the U.S.A. for study/training have stayed on or are now residents here? CIRCLE ONE.
    a. Almost all
    b. More than half
    c. Less than half
    d. Few
    e. None

43. "My U.S. experience has taught me to value the Philippines more." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

NOW, let's turn to some more questions about yourself, about the Philippines, and about your thinking regarding the role that highly educated Filipinos, like yourself, can take in order to speed Philippine development.

44. What schools in the Philippines did you attend? CHECK the appropriate row and column that describes the school you attended and kindly supply the needed information:

Educational level	Name of School	Ownership: Public	Ownership: Private	Degree & year completed
1. Elementary				
2. Secondary				
3. College/ University				

45. What was your main source of support as a college student in the Philippines? CIRCLE ONE.
   a. Family
   b. Scholarship - Please specify the name of your sponsor _____
   c. Self-supporting
   d. Others? Kindly specify. _____

46. How would you rank yourself when you graduated from college? CIRCLE ONE.
   a. Upper 25% of my graduating class
   b. Within the top 50% of my graduating class
   c. Within the top 75% of my graduating class
   d. Below the top 75% of my graduating class

47. What honors/awards did you receive in college or university? (If none, please write "None.") _____
_____
_____

48. Do you agree that you have a greater obligation than those who have less education to contribute to your country's development? CIRCLE ONE.
   a. Strongly agree
   b. Agree
   c. Uncertain
   d. Disagree
   e. Strongly disagree

49. As one who has gone through the Philippine school system, which aspect of the system do you think is weakest? CIRCLE ONE.
    a. Teachers
    b. Teacher-training
    c. Curriculum
    d. Administrative set-up
    e. Textbooks, laboratories, library facilities
    f. Others? What? _____

    In your opinion, which level of the educational system needs to be attended first by the authorities concerned? (Example: secondary level) _____

50. What organization(s) in the Philippines were you a member of at the time you left for U.S. studies? CIRCLE AS MANY AS APPLY TO YOU.
    a. Civic clubs
    b. Social, athletic, or recreational organizations
    c. Political organizations
    d. Professional organizations
    e. Business organizations
    f. School/university alumni organizations
    g. Others? What? _____
    h. None

51. Were you an officer at one time or other in these organizations? CIRCLE ONE.
    a. Yes
    b. No

52. What organization(s) are you a member of at present? Please write the letter corresponding to the organization as listed in #50 and indicate whether in the Philippines or elsewhere. _____
    _____
    _____

53. Is there or has there been any problem in the Philippines of national importance that you want (wanted) to do something about? CIRCLE ONE.
    a. Yes
    b. None

    If "yes" kindly mention what this problem is. _____
    _____
    _____

54. Nepotism and corruption are part and parcel of the Filipino way of life. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

55. There is nothing anyone can do to stop or even minimize nepotism and corruption in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

56. What, in your own experience, are --
    a. the sources of greatest frustration and sissatisfaction of individuals in your profession in the Philippines? _____
    _____
    _____
    b. the sources of satisfaction, if any? _____
    _____
    _____

57. There is room at the top for any individual who is hard-working and truly competent in his profession in the Philippines. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

58. What have you observed are the surest ways of getting ahead in the Philippines? CIRCLE ONE.
    a. To be a member of a rich family
    b. To be well educated
    c. To have influential friends and relatives in government and industry
    d. Ability and hard work in one's line of specialization
    e. Something else? Kindly specify. _____
    _____

59. All things being equal, it is easier for a Filipino to raise to an executive position in the U.S.A. than in the Philippines. CIRCLE ONE.

a. Strongly agree
b. Agree
c. Uncertain
d. Disagree
e. Strongly disagree

60. All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice. CIRCLE ONE.

a. Strongly agree
b. Agree
c. Uncertain
d. Disagree
e. Strongly disagree

61. How old were you when you left for U.S. studies? CIRCLE your answer. (If you have been to the U.S.A. more than once, for training or study, please circle your age the first time, second time, etc., that you have gone to the U.S.A. Example: If you were less than 25 years old the first time, then CIRCLE (a) and write "first time" after the statement.)

a. Less than 25 years old
b. Over 25 years but not more than 30 years old
c. Over 30 years but not more than 35 years old
d. Over 35 years but not more than 40 years old
e. Over 40 years but not more than 45 years old
f. Over 45 years but not more than 50 years old
g. Over 50 years old

62. When and where were you born?

_____ _____
Date of birth Place of birth

63. Comparing yourself with friends and colleagues in the Philippines who have obtained the same type and level of education here in the U.S.A. as you have, would you say that you are -- CIRCLE ONE.

a. Better off, in every sense of the word
b. Better off, only in some respects
c. About the same
d. Less well off
e. Worse off

If your answer to #63 is (b) will you kindly explain? _____

_____

_____

64. The Philippines will remain a poor country, unless Filipinos become completely Westernized. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

65. "I do not think I can live for a long time in a foreign country away from my family and the way of life I have been used to in the Philippines." CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

66. Generally speaking, each one of us feels certain things are quite important. What do you personally consider important in life? Kindly list them in the order of their importance to you.

    _____

    _____

    _____

    _____

    _____

    _____

67. One's loyalty to his country ends where loyalty to himself and his family begins. CIRCLE ONE.
    a. Strongly agree
    b. Agree
    c. Uncertain
    d. Disagree
    e. Strongly disagree

68. What is your civil status? CIRCLE ONE.
    a. Single
    b. Married
    c. Widow/widower
    d. Separated/divorced

    If your answer to #68 is b, c, or d, kindly answer the following:
    68.1 Year of marriage _____
    68.2 Citizenship of spouse _____
    68.3 Number of children _____
    68.4 If married at the time of U.S. study, did your family join you in the U.S.A.? CIRCLE ONE.
        a. Yes
        b. No

69. What is your sex? CIRCLE your answer.
   a. Male
   b. Female

70. What country are you a citizen of? CIRCLE ONE.
   a. Philippines
   b. U.S.A.
   c. Others? Kindly specify. _____

If your answer to #70 is (a), what type of U.S. visa do you hold?

_____

71. Where have you resided longest in the Philippines?

_____

72. Are you planning to return <u>permanently</u> to the Philippines at some future date? CIRCLE ONE.
   a. Yes
   b. No

IF "yes," when? CIRCLE ONE.
   a. Approximately five years from now
   b. Approximately ten years from now
   c. Approximately fifteen years from now
   d. Approximately twenty years from now

73. Would you care to give any remarks or suggestions as to how the Philippines can attract and involve highly educated and ambitious Filipinos like yourself in the country's (Philippines) development projects?

HAVE YOU ANSWERED ALL QUESTIONS?
Please go over the questionnaire again
to check if you missed answering any.

Thank you very much for your help!

J. R. Cortes

APPENDIX C

Comparison of Responses of Non-Migrants and Migrants to Each of the Eleven Items on the Anchorage Scale

Comparison of the Responses of Migrants and Non-Migrants to the Items on the Anchorage Scale

Item #6: Were you eager to return to the Philippines at the end of your U.S. studies?

	% Migrants	N
Very much	11.2 (13)	116
Much	14.0 (7)	50
Uncertain	54.8 (17)	31
Somewhat	42.9 (12)	28
Not at all	60.7 (17)	28
	66	253

Missing answer (1)

$X^2 = 51.895$, df = 4, $p < .001$

Item #34: All advantages and disadvantages considered, I would prefer the Filipino family system over all others that I know.

	% Migrants	N
Strongly agree	27.0 (24)	89
Agree	26.5 (31)	117
Uncertain	15.4 (4)	26
Disagree	33.3 (6)	18
Strongly disagree	25.0 (1)	4
	66	254

$X^2 = 2.086$, df = 4, NS

Item #41: I believe that my U.S. training is/will be wasted in the Philippines.

	% Migrants	N
Strongly agree	35.3 (6)	17
Agree	14.3 (3)	21
Uncertain	60.0 (15)	25
Disagree	23.1 (28)	121
Strongly disagree	20.3 (14)	69
	66	253

Missing answer (1)

$X^2 = 18.923$, df = 4, $p < .001$

Item #43: My U.S. experience has taught me to value the Philippines more.

	% Migrants	N
Strongly agree	17.6 (13)	74
Agree	26.7 (27)	101
Uncertain	35.6 (16)	45
Disagree	26.9 (7)	26
Strongly disagree	40.0 (2)	5
	65	251

Missing answer (4)

$X^2 = 5.432$, df = 4, NS

Item #48: Do you agree that you have a greater obligation than those who have less education to contribute to your country's development?

	% Migrants	N
Strongly agree	16.4 (20)	122
Agree	29.4 (32)	109
Uncertain	57.1 (4)	7
Disagree	63.6 (7)	11
Strongly disagree	60.0 (3)	5
	66	254

$X^2 = 21.130$, df = 4, $p < .001$

Item #54: Nepotism and corruption are part and parcel of the Filipino way of life.

	% Migrants	N
Strongly agree	36.2 (25)	69
Agree	25.7 (29)	113
Uncertain	28.6 (8)	28
Disagree	7.3 (3)	41
Strongly disagree	33.3 (1)	3
	66	254

$X^2 = 11.383$, df = 4, $p < .05$

Item #55: There is nothing anyone can do to stop or even minimize nepotism and corruption in the Philippines.

	% Migrants	N
Strongly agree	11.1 (1)	9
Agree	42.9 (9)	21
Uncertain	26.7 (8)	30
Disagree	25.6 (34)	133
Strongly disagree	23.0 (14)	61
	66	254

$X^2 = 4.455$, df = 4, NS

Item #60: All advantages and disadvantages considered, I would still choose to live in the Philippines if I were faced with a choice.

	% Migrants	N
Strongly agree	16.2 (13)	80
Agree	20.9 (19)	91
Uncertain	40.0 (16)	40
Disagree	41.9 (23)	31
Strongly disagree	62.5 (5)	8
	66	250
Missing answer (4)	$X^2 = 18.693$, df = 4, $p < .001$	

Item #64: The Philippines will remain a poor country, unless Filipinos become completely Westernized.

	% Migrants	N
Strongly	28.6 (2)	7
Agree	25.0 (5)	20
Uncertain	35.7 (10)	28
Disagree	25.7 (37)	144
Strongly disagree	20.8 (11)	53
	65	
Missing answer (2)	$X^2 = 2.178$, df = 4, NS	

Item #65: I do not think I can live for a long time in a foreign country away from my family and the way of life I have been used to in the Philippines.

	% Migrants	N
Strongly agree	5.9 (2)	34
Agree	17.7 (11)	62
Uncertain	30.2 (13)	43
Disagree	32.2 (29)	90
Strongly disagree	44.0 (11)	25
	66	254

$X^2 = 15.777$, df = 4, $p < .01$

Item #67: One's loyalty to his country ends where loyalty to himself and his family begins.

	% Migrants	N
Strongly agree	43.8 (7)	16
Agree	31.4 (16)	51
Uncertain	28.2 (11)	39
Disagree	22.7 (25)	120
Strongly disagree	18.4 (7)	38
	66	254

$X^2 = 5.232$, df = 4, NS

APPENDIX D

Comparison of the Responses of the Non-Migrants and Migrants to Each of the Eleven Items on the Comparative Opportunity Scale

Comparison of the Responses of the Migrants and Non-Migrants to the Items on the Comparative Opportunity Scale

Item #5: Suppose you are asked to assess the chances for advancement in the Philippines of a young Filipino who is planning to go into your field of specialization. Which of the following would best approximate your answer?

	% Migrants	N
Very good	20.9 (19)	91
Good	24.0 (24)	100
Uncertain	28.6 (12)	42
Little	42.9 (6)	14
Very little	71.4 (5)	7
	66	254

$X^2 = 11.173$, df = 4, $p < .05$

Item #14: How much did you think then was your chance of getting the job you wanted (referring to job desired after U.S. study) in the Philippines?

	% Migrants	N
Very much	22.9 (25)	109
Much	15.9 (11)	69
Uncertain	38.5 (10)	26
Little	43.5 (10)	23
Very little	62.5 (10)	16
	66	243

$X^2 = 20.247$, df = 4, $p < .001$

Missing answer (11)

Item #15: In your own opinion, would you say that in the long run, a person with your experience and educational qualification will be better off economically in the Philippines than in the U.S.A.?

	% Migrants	N
Strongly agree	7.0 (3)	43
Agree	5.6 (2)	36
Uncertain	41.1 (23)	56
Disagree	32.3 (21)	65
Strongly disagree	32.1 (17)	53
	66	253

$X^2 = 24.826$, df = 4, $p < .001$

Item #21: A Filipino with your educational qualifications will be better off in terms of social prestige and status in a foreign country like the U.S.A. than in the Philippines.

	% Migrants	N
Strongly agree	23.7 (9)	38
Agree	25.8 (16)	62
Uncertain	25.4 (15)	59
Disagree	31.9 (22)	69
Strongly disagree	16.0 (4)	25
	66	254

$X^2 = 2.651$, df = 4, NS

Item #27: A person with your educational qualifications and ability will find it easier to gain professional recognition in the Philippines than in a foreign country like the U.S.A.

	% Migrants	N
Strongly agree	14.5 (8)	55
Agree	27.0 (17)	63
Uncertain	28.6 (16)	56
Disagree	30.6 (19)	62
Strongly disagree	33.3 (6)	18
	66	254

$X^2 = 5.173$, df = 4, NS

Item #28: Many people say that foreigners, and for that matter, Filipinos, can only be second-class citizens in the U.S.A.

	% Migrants	N
Strongly agree	8.3 (3)	36
Agree	13.1 (8)	61
Uncertain	17.0 (9)	53
Disagree	40.3 (29)	72
Strongly disagree	58.6 (17)	29
	66	251

Missing answer (3) $X^2 = 36.732$, df = 4, $p < .001$

Item #30: In this day and age, it is not who you are but what you know that matters in the Philippines.

	% Migrants	N
Strongly agree	21.2 (7)	33
Agree	15.2 (10)	66
Uncertain	29.3 (12)	41
Disagree	28.8 (21)	73
Strongly disagree	41.0 (16)	39
	66	252

Missing answer (2) $X^2 = 9.475$, df = 4, $p < .05$

Item #31: Getting recognized on one's own merit is something that does not exist in Philippine society.

	% Migrants	N
Strongly agree	33.3 (9)	27
Agree	26.1 (12)	46
Uncertain	42.9 (15)	35
Disagree	20.5 (25)	122
Strongly disagree	20.8 (5)	24
	66	254

$X^2 = 8.184$, df = 4, $p < .10$ NS

Item #40: What is the standard of living generally attained by a person of your educational qualifications in the Philippines?

	% Migrants	N
Well-off	23.1 (6)	26
Above average	27.1 (38)	140
Uncertain	80.0 (4)	5
Average	21.5 (17)	79
Below average	33.3 (1)	3
	66	253

Missing answer (1)

$X^2 = 8.677$, df = 4, $p < .10$ NS

Item #57: There is room at the top for any individual who is hardworking and truly competent in his profession in the Philippines.

	% Migrants	N
Strongly agree	14.5 (11)	76
Agree	25.3 (25)	99
Uncertain	38.0 (19)	50
Disagree	21.1 (4)	19
Strongly disagree	70.0 (7)	10
	66	254

$X^2 = 19.330$, df = 4, $p < .001$

Item #59: All things being equal, it is easier for a Filipino to rise to an executive position in the U.S.A. than in the Philippines.

	% Migrants	N
Strongly agree	31.4 (11)	35
Agree	34.5 (19)	55
Uncertain	28.2 (22)	78
Disagree	17.9 (12)	67
Strongly disagree	11.1 (2)	18
	66	253

Missing answer (1)

$X^2 = 7.157$, df = 4, NS

APPENDIX E

Tables

TABLE 1

Frequency Distribution for Scores on the Anchorage Scale of Non-Migrants and Migrants

Anchorage Scale Score	Migrants		Non-Migrants	
	%	N	%	N
51-53	1.51	1	1.66	3
48-50	3.03	2	9.57	18
45-47	3.03	2	17.02	32
42-44	10.60	7	22.87	43
39-41	19.69	13	18.08	34
36-38	15.15	10	14.89	28
33-35	19.69	13	8.51	16
30-32	15.15	10	2.12	4
27-29	6.06	4	3.19	6
24-26	3.03	2	2.12	4
21-23	3.03	2	0.0	0
	99.9	66	99.9	188

TABLE 2

Comparison of the Mean Scores of Migrants and Non-Migrants on the Anchorage Scale

	N*	Means	SD
Migrants	64	36.7	5.731
Non-Migrants	180	41.0	5.628
COMBINED	244	39.93	5.96

F ratio = 27.976, df = 1 & 242, $p < .001$

*Note: Cases with missing answers were excluded from the computation of the mean of the scores of each group.

TABLE 3

Migration by Anchorage Scale Score

Anchorage Scale Score	% Migrants	N*
Low AS (< 39)	41.4 (41)	99
High AS (≥ 39)	16.1 (25)	155
Totals	66	254

$X^2 = 18.789$, df = 1, $p < .001$

*N on which percentage was computed; based on Table 1.

TABLE 4

Frequency Distribution for Scores on the Comparative Opportunity Scale (COS) of Migrants and Non-Migrants

COS Score	Migrants		Non-Migrants	
	%	N	%	N
54-			.53	1
51-53			1.59	3
48-50			4.78	9
45-47	1.5	1	7.97	15
42-44	6.06	4	12.23	23
39-41	9.09	6	18.08	34
36-38	15.15	10	15.42	29
33-35	27.27	18	13.82	26
30-32	15.15	10	10.10	19
27-29	13.63	9	7.97	15
24-26	4.54	3	5.85	11
21-23	3.03	2	1.59	3
18-20	3.03	2	0.0	0
15-17	1.50	1	0.0	0
	99.9	66	99.9	188

TABLE 5

Comparison of the Mean Scores of Migrants and Non-Migrants on the Comparative Opportunity Scale

	N*	Mean	SD
Migrants	66	32.848	6.034
Non-Migrants	170	37.735	6.816
COMBINED	236	36.369	6.951

F ratio = 25.998, df = 1 & 234, $p < .001$

*Cases with missing answer on item(s) on the scale were excluded from the computation of the mean of the scores of each group.

TABLE 6

Migration by Comparative Opportunity Score (COS)

COS Score	% Migrants	N*
Low COS (< 36)	37.8 (45)	119
High COS (≥ 36)	15.6 (21)	135
	66	254

$X^2 = 15.157$, df = 1, $p < .001$

*N on which percentage was computed; based on Table 4.

TABLE 7

Relation of AS Score to Expressed Intention of Non-Migrants to Emigrate

AS Score	Ever Considered Emigrating?		N
	YES	NO	
Low AS	75.9 (44)	24.1 (14)	58
High AS	25.4 (33)	74.6 (97)	130
	77	111	188

$X^2 = 40.196$, df = 1, $p < .001$

TABLE 8

Relation of AS Score to Expressed Intention of Migrants to Return to the Philippines

AS Score	Planning to return to the Philippines, etc.?		N
	YES	NO	
Low AS	43.9 (18)	56.1 (23)	41
High AS	68.0 (17)	32.0 (8)	25
	35	31	66

$X^2 = 2.217$, df = 1, $p < .10$ NS

TABLE 9

Relationship of AS Score to COS Score of Student Group

AS Score	COS Score		
	Low	High	N
Low AS	2	5	7
High AS	1	13	14
	3	18	21

TABLE 10

Relationship of AS Score to COS Score and to Students' Expressed Intention to Return to the Philippines

AS Score	COS Score	"Are you planning to return to the Philippines?"		
		YES	NO	N
Low AS	Low COS	None	50.0 (2)	2
	High COS	18.8 (3)	50.0 (2)	5
	sub-total	3	4	7
High AS	Low COS	100.0 (1)	None	1
	High COS	81.3 (13)	None	13
	sub-total	14	None	14
	TOTALS	17	4	21

TABLE 11

Relation of COS Score to Expressed Intention of Non-Migrants to Emigrate

COS Score	Ever considered emigrating?		N
	YES	NO	
Low COS	60.8 (45)	39.2 (29)	74
High COS	28.1 (32)	71.9 (82)	114
	77	111	188

$X^2 = 18.560$, df = 1, $p < .001$

TABLE 12

Relation of COS Score to Expressed Intention of Migrants to Return to the Philippines

COS Score	Planning to return to the Philippines, etc.?		N
	YES	NO	
Low COS	51.1 (23)	48.9 (22)	45
High COS	57.1 (12)	42.9 (9)	21
	35	31	66

$X^2 = .023$, df = 1, NS

TABLE 13

Percentage Distribution of Migrants Planning to Return to the Philippines within a Specified Period

"If planning to return permanently to the Philippines, when?"	%
Less than 5 years from now	2.8 (1)
Approximately 5 years from now	34.3 (12)
Approximately 10 years from now	37.1 (13)
Approximately 15 years from now	8.6 (3)
Approximately 20 years from now	11.4 (4)
More than 20 years from now	5.7 (2)
TOTAL	99.9 (35)

TABLE 14

Relationship of Score on AS to Score on COS

AS Score	COS Score		
	Low	High	N
Low	69.7 (69)	30.3 (30)	99
High	32.3 (50)	67.7 (105)	155
	119	135	254

$X^2 = 32.519$, df = 1, $p < .001$

TABLE 15

Probability of Migration by Score on the AS and COS

COS Score	AS Score	% Migrants	N
Low COS	Low AS	47.8 (33)	69
	High AS	24.0 (12)	50
		45	119

$X^2 = 6.022$, df = 1, $p < .02$

High COS	Low AS	26.7 (8)	30
	High AS	12.4 (13)	105
		21	135

$X^2 = 2.619$, df = 1, NS

TABLE 16

Migration by Source of Support as Student or Trainee in the U.S.A.*

Source(s) of Support	% Migrants	N	X^2	Significance
1. Government	6.1 (8)	132	54.585, df=1,	$p < .001$
a. Philippine Government	1.1 (1)	95	46.999, df=1,	$p < .001$
b. U.S. Government	5.4 (6)	111	41.534, df=1,	$p < .001$
2. Philippine private employer	(0)	7	1.328, df=1,	NS
3. U.S. Foundation	29.6 (8)	27	.050, df=1,	NS
4. U.S. University	36.6 (15)	41	2.237, df=1,	NS
5. Family-Supported	47.2 (25)	53	14.268, df=1,	$p < .001$
6. Self-Supported	60.0 (42)	70	55.719, df=1,	$p < .001$

*Multiple response.

TABLE 17

Migration by Government Support while on Study or Training in the U.S.A.

Government Supported?	% Migrants	N
YES	6.1 (8)	132
NO	47.5 (58)	122
	66	254

$X^2 = 54.585$, df = 1, $p < .001$

TABLE 18

Migration by Philippine Government Support while on Study or Training in the U.S.A.

Sponsored by the Philippine Government?	% Migrants	N
YES	1.1 (1)	95
NO	40.9 (65)	159
	66	254

$X^2 = 46.999$, df = 1, $p < .001$

TABLE 19

Migration by U.S. Government Support while on Study or Training in the U.S.A.

Sponsored by the U.S. Government	% Migrants	N
YES	5.4 (6)	111
NO	42.0 (60)	143
	66	254

$X^2 = 41.534$, df = 1, $p < .001$

TABLE 20

Migration by Government Support and Score on the AS

AS Score	Government Supported?	% Migrants	N
Low AS	YES	14.3 (5)	35
	NO	56.3 (36)	64
		41	99

$X^2 = 14.738$, df = 1, $p < .001$

High AS	YES	3.1 (3)	97
	NO	37.9 (22)	58
		25	155

$X^2 = 30.040$, df = 1, $p < .001$

TABLE 21

Migration by Government Support and Score on the COS

COS Score	Government Supported?	% Migrants	N
Low COS	YES	14.3 (8)	56
	NO	58.7 (37)	63
		45	119

$X^2 = 23.049$, df = 1, $p < .001$

High COS	YES	0.0	76
	NO	35.6 (21)	59
		21	135

$X^2 = 29.381$, df = 1, $p < .001$

TABLE 22

Migration by Government Support and Age at the Time of U.S. Study

Age	Government Supported?	% Migrants	N
30 years or less	YES	14.3 (7)	49
	NO	51.4 (54)	105
		61	154
	$X^2 = 17.746$, df = 1, $p < .001$		
Over 30-40 years	YES	2.1 (1)	47
	NO	28.6 (4)	14
		5	61
	$X^2 = 6.817$, df = 1, $p < .01$		
Over 40 years	YES	0.0	35
	NO	0.0	3
		0.0	38
	TOTALS	66	253
Missing answer (1)			

TABLE 23

Migration by Government Support and Sex

Sex	Government Supported?	% Migrants	N
Male	YES	4.4 (4)	90
	NO	36.2 (17)	47
		21	137
	$X^2 = 21.562$, df = 1, $p \ll .001$		
Female	YES	9.5 (4)	42
	NO	54.7 (41)	75
		45	117
	$X^2 = 21.312$, df = 1, $p \ll .001$		

TABLE 24

Migration by Government Support and Level of Education Completed in the U.S.A.

Level of Education Attained in the U.S.A.	Government Supported?	% Migrants	N
No degree	YES	1.7 (1)	60
	NO	40.9 (18)	44
		19	104
	$X^2 = 23.618$, df = 1, $p \ll .001$		
Bachelor's or special certificate	YES	14.3 (1)	7
	NO	66.7 (4)	6
		5	13
	Fisher's Exact Test = .086		
Master's or above	YES	10.7 (6)	56
	NO	51.5 (34)	66
		40	122
	$X^2 = 21.071$, df = 1, $p \ll .001$		
Missing answer (15)			

TABLE 25

Migration by Government Support by Field of Specialization

Specialty	Government Supported?	% Migrants	N
Medical	YES	0.0	3
	NO	48.3 (14)	29
		14	32
	$X^2 = .986$, df = 1, NS		
Non-Medical	YES	6.2 (8)	128
	NO	47.3 (44)	93
		52	221
	$X^2 = 48.218$, df = 1, $p \ll .001$		
Missing answer (1)			

TABLE 26

Migration by Age at the Time of U.S. Study

Age	% Migrants	N
25 years or less	36.5 (31)	85
Over 25-30 years	43.5 (31)	69
Over 30-35 years	8.9 (4)	45
Over 35-40 years	6.2 (1)	16
Over 40-45 years	0.0	23
Over 45-50 years	0.0	11
Over 50 years	0.0	4
	66	253

$X^2 = 39.156$, df = 6, $p < .001$

Missing answer (1)

TABLE 27

Migration by Date of Birth of Subjects

Date of Birth	% Migrants	N
1941-1945	55.2 (16)	29
1936-1940	37.1 (26)	70
1931-1935	37.3 (19)	51
1926-1930	8.1 (3)	37
1921-1925	0.0 (0)	25
1920-before	1.5 (1)	36
	65	248

$X^2 = 45.490$, df = 5, $p << .001$

Missing answer (6)

NOTE: Approximately 94 percent or 61/65 of the migrants were born after 1930, which means that 94 percent of the migrants fall within the age range of 23-32 years.

TABLE 28

Migration by Age at the Time of U.S. Study and AS Score

AS Score	Age	% Migrants	N
Low AS	30 years - under	48.6 (36)	94
	Over 30-35 years	30.8 (4)	13
	Over 35 years	8.3 (1)	12
		41	99

$X^2 = 7.615$, df = 2, $p < .05$

High AS	30 years - under	31.3 (25)	80
	Over 30-35 years	0.0	32
	Over 35 years	0.0	42
		25	154

$X^2 = 27.606$, df = 2, $p << .001$

Missing answer (1)

TABLE 29

Migration by Age at the Time of U.S. Study and COS Score

COS Score	Age	% Migrants	N
Low COS	30 years - under	52.6 (41)	78
	Over 30-35 years	14.3 (3)	21
	Over 35 years	5.0 (1)	20
		45	119

$X^2 = 21.318$, df = 2, $p < .001$

High COS	30 years - under	26.3 (20)	76
	Over 30-35 years	4.2 (1)	24
	Over 35 years	0.0 (0)	34
		21	134

$X^2 = 15.237$, df = 2, $p < .001$

Missing answer (1)

TABLE 30

Migration by Age at the Time of U.S. Study and Government Support

Government Supported?	Age	% Migrants	N
Government supported	30 years - under	14.3 (7)	49
	Over 30-40 years	2.1 (1)	47
	Over 40 years	0.0 (0)	35
		8	131
	$X^2 = 9.290$, df = 2, $p < .01$		
Not government supported	30 years - under	51.4 (54)	105
	Over 30-40 years	28.6 (4)	14
	Over 40 years	0.0 (0)	3
		58	122
	$X^2 = 5.375$, df = 2, $p < .10$ NS		

Missing answer (1)

TABLE 31

Migration by Age at the Time of U.S. Study and Sex

Sex	Age	% Migrants	N
Male	30 years - under	29.4 (20)	68
	Over 30-35 years	3.6 (1)	28
	Over 35 years	0.0 (0)	41
		21	137
	$X^2 = 20.796$, df = 2, $p < .001$		
Female	30 years - under	47.7 (41)	86
	Over 30-35 years	17.6 (3)	17
	Over 35 years	7.7 (1)	13
		45	116
	$X^2 = 11.354$, df = 2, $p < .01$		

Missing answer (1)

TABLE 32

Migration by Sex

Sex	% Migrants	N
Male	15.3 (21)	137
Female	38.5 (45)	117
	66	254

$X^2 = 16.376$, df = 1, $p < .001$

TABLE 33

Relationship of AS Score and Sex

Sex	AS Score		
	High	Low	N
Male	60.6 (94)	43.4 (43)	137
Female	39.4 (61)	56.6 (56)	117
	100.0 (155)	100.0 (99)	254

$X^2 = 6.526$, df = 1, $p < .02$

TABLE 34

Migration by Sex and AS Score

AS Score	Sex	% Migrants	N
Low AS	Male	37.2 (16)	43
	Female	44.6 (25)	56
		41	99

$X^2 = .259$, df = 1, NS

High AS	Male	5.3 (5)	94
	Female	32.8 (20)	61
		25	155

$X^2 = 18.651$, df = 1, $p < .001$

TABLE 35

Relationship of COS Score and Sex

Sex	COS Score		N
	Low	High	
Male	48.0 (57)	59.2 (80)	137
Female	52.0 (62)	40.8 (55)	117
	119	135	254

$X^2 = 2.843$, df = 1, NS

TABLE 36

Migration by Sex and COS Score

COS Score	Sex	% Migrants	N
Low COS	Male	29.8 (17)	57
	Female	45.2 (28)	62
		45	119

$X^2 = 2.354$, df = 1, NS

High COS	Male	5.0 (4)	80
	Female	30.9 (17)	55
		21	135

$X^2 = 14.741$, df = 1, $p < .001$

TABLE 37

Migration by Sex and Government Support

Government supported?	Sex	% Migrants	N
Government supported	Male	4.4 (4)	90
	Female	9.5 (4)	42
		8	132
	X^2 = .558, df = 1, NS		
Not government supported	Male	36.2 (17)	47
	Female	54.7 (41)	75
		58	122
	X^2 = 3.256, df = 1, p < .10 NS		

TABLE 38

Migration by Sex and Age at the Time of U.S. Study

Age at the Time of U.S. Study	Sex	% Migrants	N
30 years - under	Male	29.4 (20)	68
	Female	47.7 (41)	86
		61	154
	X^2 = 4.558, df = 1, p < .05		
Over 30-35 years	Male	3.6 (1)	28
	Female	17.6 (3)	17
		4	45
	X^2 = 1.141, df = 1, NS		
Over 35 years	Male	0.0 (0)	41
	Female	7.7 (1)	13
		1	54
	X^2 = .374, df = 1, NS		

Missing answer (1)

TABLE 39

The Subjects According to Marital Status at the Start of Their U.S. Study and Sex

Marital Status	Sex		N*
	Male	Female	
Single	32.1 (44)	71.6 (83)	127
Married	67.9 (93)	28.4 (33)	126
Total	137	116	253

$X^2 = 37.512$, df = 1, $p < .001$

Missing answer (1)

*N on which percentage was computed.

TABLE 40

Migration by Sex and Marital Status at the Time of U.S. Study

Marital Status	Sex	% Migrants	N
Single	Male	27.3 (12)	44
	Female	39.8 (33)	83
		45	127
	$X^2 = 1.451$, df = 1, NS		
Married	Male	9.7 (9)	93
	Female	33.3 (11)	33
		20	126
	$X^2 = 8.512$, df = 1, $p < .01$		

Missing answer (1)

TABLE 41

Migration by Sex and Citizenship of Spouse

Citizenship of Spouse	Sex	% Migrants	N
Filipino	Male	9.1 (10)	110
	Female	30.2 (16)	53
		26	163
	$X^2 = 10.353$, df = 1, $p < .01$		
U.S. & other nationality	Male	71.4 (5)	7
	Female	100.0 (17)	17
		22	24
	$X^2 = 2.218$, df = 1, NS		

NOTE: Citizenship of spouse refers to those who are presently married.

TABLE 42

Proportion of Migrants Who Graduated with Honors in the Philippines*

Graduated with Honors?	% Migrants	N
YES	28.7 (33)	115
NO	24.6 (33)	134
	66	249
Missing answer (5)	$X^2 = .327$, df = 1, NS	

*Refers to graduation from a Philippine college or university.

TABLE 43

Respondents' Self-Ranking in College or University in the Philippines and Probability of Migration

Self-Ranking in College	% Migrants	N
Upper 25%	27.7 (48)	173
Within top 50%	20.3 (12)	59
Within top 75%	33.3 (6)	18
Below top 75%	0.0 (0)	1
	66	251

$X^2 = 2.084$, df = 3, NS

Missing answer (3)

TABLE 44

Probability of Migration by Highest Degree Completed in the Philippines before U.S. Study

Highest Degree	% Migrants	N
Doctorate or equivalent	0.0	1
Master's degree	25.0 (6)	24
M.D., LL.B.	15.2 (5)	33
Bachelor's	27.3 (39)	143
Less than 4 years college	0.0 (0)	4
Others	0.0 (0)	1
	50	206

$X^2 = 4.124$, df = 5, NS

Missing answer (48)

TABLE 45

Probability of Migration by Level of Education Attained in the U.S.A.

Level of Education Attained in the U.S.A.	% Migrants	N
No degree	18.3 (19)	104
Bachelor's or special certificate	38.5 (5)	13
Master's degree or above	32.8 (40)	122
	64	239

$X^2 = 6.991$, df = 2, $p < .05$

Missing answer (15)

TABLE 46

Probability of Migration by Highest Degree Attained in the U.S.A. and Score on the AS

AS Score	Level of Education Attained	% Migrants	N
Low AS	No degree	33.3 (12)	36
	Bachelor's or equivalent	62.5 (5)	8
	Master's or above	46.0 (23)	50
		40	94
	$X^2 = 2.796$, df = 2, NS		
High AS	No degree	10.3 (7)	68
	Bachelor's or equivalent	0.0 (0)	5
	Master's or above	23.6 (17)	72
		24	145
	$X^2 = 5.517$, df = 2, NS		

Missing answer (15)

TABLE 47

Probability of Migration by Level of Education in the U.S.A. for Low and High Score on the COS

COS Score	Level of Education Attained	% Migrants	N
Low COS	No degree	28.0 (36)	50
	Bachelor's or equivalent	50.0 (5)	10
	Master's or above	49.0 (25)	51
		44	111
	$X^2 = 5.155$, df = 2, NS		
High COS	No degree	9.3 (5)	54
	Bachelor's or equivalent	0.0 (0)	3
	Master's or above	21.1 (15)	71
		20	128
	$X^2 = 3.845$, df = 2, NS		

Missing answer (15)

TABLE 48

Probability of Migration by Level of Education Attained in the U.S.A. and Government Support

Government Supported as Student or Trainee in U.S.A.	Level of Education	% Migrants	N
Government supported	No degree	1.7 (1)	60
	Bachelor's or equivalent degree	14.3 (1)	7
	Master's or above	10.7 (6)	56
		8	123
	$X^2 = 4.630$, df = 2, $p < .10$ NS		
Not government supported	No degree	40.9 (18)	44
	Bachelor's or equivalent degree	66.7 (4)	6
	Master's or above	51.5 (34)	66
		56	116
	$X^2 = 2.046$, df = 2, NS		

Missing answer (15)

TABLE 49a

Migration by Major Specialty

Specialty	% Migrants	N
Medical	43.8 (14)	32
Non-Medical	23.5 (52)	221
	66	253

$X^2 = 4.925$, df = 1, $p < .05$

Missing answer (1)

TABLE 49b

Migration by Highest Degree Completed in the U.S.A. for Various Fields of Specialization

Specialty	Degree Completed	% Migrants	N
Physical sciences	None	0.0 (0)	10
	Bachelor's or equivalent	100.0 (2)	2
	Master's or above	33.3 (4)	12
		6	224
	$X^2 = 9.777$, df = 2, $p < .01$		
Life sciences (biological, agricultural & related fields)	None	12.5 (1)	8
	Bachelor's or equivalent	100.0 (1)	1
	Master's or above	26.1 (6)	23
		8	32
	$X^2 = 3.681$, df = 2, $p < .20$ NS		
Engineering & related specialty	None	0.0 (0)	9
	Bachelor's or equivalent	0.0 (0)	1
	Master's or above	70.0 (7)	10
		7	20
	$X^2 = 10.769$, df = 2, $p < .01$		
Social sciences	None or No degree	9.5 (2)	21
	Bachelor's or equivalent	0.0 (0)	2
	Master's or above	22.7 (5)	22
		7	45
	$X^2 = 1.811$, df = 2, NS		
Business, commerce & law	No degree	15.4 (2)	13
	Bachelor's or equivalent	0.0 (0)	0
	Master's or above	23.8 (5)	21
		7	34
	$X^2 = .023$, df = 2, NS		
Education & related fields	No degree	20.0 (3)	15
	Bachelor's or equivalent	0.0 (0)	2
	Master's or above	39.1 (9)	23
		12	40
	$X^2 = 2.484$, df = 2, NS		

TABLE 49b (continued)

Specialty	Degree Completed	% Migrants	N
Arts & humanities	No degree	16.7 (1)	6
	Master's or above	37.5 (3)	8
		4	14
	Fisher's Exact Test = .40 NS		
Other specialties	No degree	0.0	2
	Bachelor's or equivalent	0.0	1
		0	3

Missing answer (42)

TABLE 50

Migration by Established Job Ties in the Philippines during U.S. Study

Established Job Ties	% Migrants	N
Leave, official time	0.0 (0)	114
Leave, not official time	41.5 (22)	53
Resigned from job	52.6 (30)	57
Others (terminated professional practice, left job without official notice, and similar reasons)	66.7 (4)	6
Not applicable No job	39.1 (9)	23
	65	253

$X^2 = 75.482$, df = 4, $p << .001$

Missing answer (1)

TABLE 51

Migration by Job Ties in the Philippines during U.S. Study and Government Support

Government Supported during U.S. Study?	Job Ties in the Philippines during Study	% Migrants	N
Government supported	Leave, official time	0.0 (0)	102
	Leave, not official time	18.8 (3)	16
	Resigned & others	41.7 (5)	12
		8	130
	$X^2 = 37.289$, DF = 2, $p << .001$		
Not government supported	Leave, official time	0.0 (0)	12
	Leave, not official time	51.4 (19)	37
	Resigned or others	56.9 (29)	51
		48	100
	$X^2 = 12.848$, df = 2, $p < .01$		

Missing answer (2)
Not employed (22)

TABLE 52

- For Government and Non-Government Employees -
Migration by Job Ties in the Philippines Prior to U.S. Study

Employer	Job Ties	% Migrants	N
Philippine government	Leave, official time	0.0 (0)	113
	Leave, not official time	53.3 (8)	15
	Resigned & others	42.9 (9)	21
		17	149
	$X^2 = 61.183$, df = 2, $p << .001$		
Not Philippine government	Leave, official time	0.0 (0)	1
	Leave, not official time	36.8 (14)	38
	Resigned & others	59.5 (25)	42
		39	81
	$X^2 = 5.051$, df = 2, $p < .10$ NS		

Missing answer (2)
Not employed (22)

TABLE 53

Migration by Job Ties in the Philippines during U.S. Study for Two Age Groups

Date of Birth	Job Ties	% Migrants	N
Born after 1930	Leave, official time	0.0 (0)	36
	Leave, not official time	54.1 (20)	37
	Resigned & others	57.1 (32)	56
		52	129
	$X^2 = 33.811$, df = 2, $p < .001$		
Born in or before 1930	Leave, official time	0.0 (0)	76
	Leave, not official time	7.7 (1)	13
	Resigned & others	28.6 (2)	7
		3	96
	$X^2 = 18.319$, df = 2, $p < .001$		

No answer or not applicable, i.e., no job (29)

TABLE 54

Migration by Job Ties in the Philippines during U.S. Study Holding Constant Salary or Earnings before U.S. Study

Salary or Earnings before U.S. Study (annual)	Job Ties in the Philippines during Study	% Migrants	N
4,000 pesos or less	Leave, official time	0.0 (0)	39
	Leave, not official time	37.0 (10)	27
	Resigned & others	56.4 (22)	39
		32	105
	$X^2 = 30.024$, df = 2, $p \ll .001$		
4,000-10,000 pesos	Leave, official time	0.0 (0)	73
	Leave, not official time	45.8 (11)	24
	Resigned & others	50.0 (11)	22
		22	119
	$X^2 = 42.963$, df = 2, $p \ll .001$		
Over 10,000 pesos	Leave, official time	0.0 (0)	2
	Leave, not official time	50.0 (1)	2
	Resigned & others	0.0 (0)	1
		1	5
	$X^2 = 1.875$, df = 2, NS		

No answer or not applicable (25)

TABLE 55

Migration by Job Ties during U.S. Study in the Philippines for Low and High AS Score

AS Score	Job Ties	% Migrants	N
Low AS	Leave, official time	0.0 (0)	26
	Leave, not official time	52.2 (12)	23
	Resigned & others	64.7 (22)	34
		34	83
	$X^2 = 27.160$, df = 2, $p < .001$		
High AS	Leave, official time	0.0 (0)	88
	Leave, not official time	33.3 (10)	30
	Resigned & others	41.4 (12)	29
		22	147
	$X^2 = 39.338$, df = 2, $p < .001$		

Missing answer or not applicable (24)

TABLE 56

Migration by Job Ties in the Philippines during U.S. Study for Low and High COS Score

COS Score	Job Ties	% Migrants	N
Low COS	Leave, official time	0.0 (0)	47
	Leave, not official time	60.0 (15)	25
	Resigned & others	75.0 (24)	32
		39	104
	$X^2 = 57.799$, df = 2, $p << .001$		
High COS	Leave, official time	0.0 (0)	67
	Leave, not official time	25.0 (7)	28
	Resigned & others	32.3 (10)	31
		17	126
	$X^2 = 22.979$, df = 2, $p < .001$		

Missing answer or not applicable (24)

TABLE 57

Proportion of Migrants and Non-Migrants who Resigned from their Job in the Philippines when They Left for U.S. Study and Who Stayed in the U.S. at the End of their Study

	Migrants	Non-Migrants	N*
Stayed in U.S. after study	79.1 (34)	20.9 (9)	43
Returned to the Philippines at once after study	0.0 (0)	100.0 (20)	20
	34	29	63

$X^2 = 31.240$, df = 1, $p < .001$

*N on which percentage was computed.

TABLE 58

Migration by Reasons for Remaining in the U.S.A. after Study

Reason(s) for Stay in U.S. after Study	% Migrants	N*
1. Worked	83.3 (35)	42
2. Travelled	0.0 (0)	23
3. Further training, including practical training	34.6 (9)	26
4. Applied for permanent residence	100.0 (3)	3
5. Purely personal reason, e.g., marriage to a U.S. citizen	91.2 (31)	34

*Multiple response explains why percentage exceeds 100.0.

TABLE 59

Migration by Degree of Importance Given "To improve chances of getting a good job in U.S.," as a Motive for U.S. Study by Those Who Resigned from their Job in the Philippines

Reason for U.S. Study: "To improve chances of getting a good job in the U.S.A."	% Migrants	Total that Resigned: N = 63
Very important	70.6 (12)	17
Important	85.7 (6)	7
Somewhat important	62.5 (5)	8
Not important	27.3 (6)	22
Did not mention this motive	55.6 (5)	9
	34	63

$X^2 = 11.284$, df = 4, $p < .05$

TABLE 60

Proportion Attending Various Schools in the Philippines among the Migrants and Non-Migrants*

Type of School Attended at Each Level of the Educational System	Non-Migrants N = 188	Migrants N = 66	X^2 & Significance
1. Elementary Level			
Public school	75.0	57.6	6.314, df=1, p < .01
Exclusive private school	9.6	7.6	.056, df=1, NS
Non-exclusive private school	12.1	36.4	17.294, df=1, p < .001
2. Secondary Level			
Public school	54.3	31.8	8.968, df=1, p < .01
Exclusive private school	15.4	15.2	.021, df=1, NS
Non-exclusive private school	27.1	56.1	16.805, df=1, p < .001
3. College or University			
University of the Philippines	44.1	28.8	4.171, df=1, p < .05
Other state university/ college	10.1	4.5	1.271, df=1, NS
Exclusive private school	11.7	13.6	.037, df=1, NS
Other sectarian non-exclusive private school	20.7	25.8	.452, df=1, NS
Non-sectarian, non-exclusive private school	37.8	40.9	.092, df=1, NS

*Percentage was computed on the basis of the total N for each group. Since some respondents reported attendance in more than one type of school at each level, percentage exceeds 100.0.

TABLE 61

Migration by Type of School Attended in the Philippines at each Level of Educational System

1. Attended public elementary school?	% Migrants	N
YES	21.2 (38)	179
NO	37.3 (28)	75
	66	254

$X^2 = 6.314$, df = 1, $p < .02$

2. Attended public secondary school?		
YES	17.1 (21)	123
NO	34.4 (45)	131
	66	254

$X^2 = 8.968$, df = 1, $p < .01$

3. Attended University of the Philippines?		
YES	18.6 (19)	102
NO	30.9 (47)	152
	66	254

$X^2 = 4.178$, df = 1, $p < .05$

TABLE 62

Migration by Type of Elementary School Attended in the Philippines and Score on the AS Held Constant

AS Score	Elementary school attended	% Migrants	N
Low AS	Public elementary	37.3 (22)	59
	Private elementary	47.5 (19)	40
		41	99

$X^2 = .646$, df = 1, NS

High AS	Public elementary	13.3 (16)	120
	Private elementary	25.7 (9)	35
		25	155

$X^2 = 2.223$, df = 1, NS

TABLE 63

Migration by Type of High School Attended with Score on AS Held Constant

AS Score	High school attended	% Migrants	N
Low AS	Public high school	38.7 (12)	31
	Private high school	42.6 (29)	68
		41	99

$X^2 = .022$, df = 1, NS

High AS	Public high school	9.8 (9)	92
	Private high school	25.4 (16)	63
		25	155

$X^2 = 5.634$, df = 1, $p < .02$

TABLE 64

Migration by Type of University or College Attended in the Philippines with Score on the AS Held Constant

AS Score	University or college attended	% Migrants	N
Low AS	University of the Philippines	36.8 (14)	38
	Not University of the Philippines	44.3 (27)	61
		41	99

$X^2 = .269$, df = 1, NS

High AS	University of the Philippines	7.8 (5)	64
	Not University of the Philippines	22.0 (20)	91
		25	155

$X^2 = 4.575$, df = 1, $p < .05$

TABLE 65

Migration by Type of Elementary School Attended in the Philippines with COS Score Held Constant

COS Score	Elementary School	% Migrants	N
Low COS	Public elementary	32.5 (27)	83
	Private elementary	50.0 (18)	36
		45	119
	$X^2 = 2.558$, df = 1, NS		
High COS	Public elementary	11.5 (11)	96
	Private elementary	25.6 (10)	39
		21	135
	$X^2 = 3.235$, df = 1, $p < .10$ NS		

TABLE 66

Migration by Type of Secondary School Attended with COS Score Held Constant

COS Score	Type of Secondary School Attended	% Migrants	N
Low COS	Public secondary school	32.7 (17)	52
	Private secondary school	41.8 (28)	67
		45	119
	$X^2 = .680$, df = 1, NS		
High COS	Public secondary school	5.6 (4)	71
	Private secondary school	26.6 (17)	64
		21	135
	$X^2 = 9.686$, df = 1, $p < .01$		

TABLE 67

Migration by Type of University or College Attended in the Philippines with COS Score Held Constant

COS Score	University/College Attended	% Migrants	N
Low COS	Attended University of the Philippines	31.8 (14)	44
	Did not attend University of the Philippines	41.3 (31)	75
		45	119
	$X^2 = .701$, df = 1, NS		
High COS	Attended University of the Philippines	8.6 (5)	58
	Did not attend University of the Philippines	20.8 (16)	77
		21	135
	$X^2 = 2.854$, df = 1, NS		

TABLE 68

Migration by Type of School Attended with Presence or Absence of Government Support Held Constant

Support	Type of School	% Migrants	N*
Government supported	Attended public elementary school	5.6 (6)	107
	Did not attend public elementary school	8.0 (2)	25
Not Government supported	Attended public elementary school	44.4 (32)	72
	Did not attend public elementary school	52.0 (26)	50
Government supported	Attended public secondary school	4.8 (4)	83
	Did not attend public secondary school	8.2 (4)	49
Not Government supported	Attended public secondary school	42.5 (17)	40
	Did not attend public secondary school	50.0 (41)	82
Government supported	Attended University of the Philippines	7.9 (5)	63
	Did not attend University of the Philippines	4.3 (3)	69
Not Government supported	Attended University of the Philippines	35.9 (14)	39
	Did not attend University of the Philippines	53.0 (44)	83

*N on which percentage was computed.

TABLE 69

Migration by Involvement in or Commitment to the Philippines

1. Item #53: Is there or has there been any problem of national importance in the Philippines that you want (wanted) to do something about?"	% Migrants	N
YES	21.7 (44)	203
NONE	42.9 (18)	42
	62	245

$X^2 = 7.178$, df = 1, $p < .01$

2. Item #50: "What organizations in the Philippines were you a member of at the time you left for U.S. studies?	% Migrants	N*
1. Professional organizations	23.1 (43)	186
	$X^2 = 2.436$, df = 1, NS	
2. Alumni organizations	27.1 (52)	192
	$X^2 = .287$, df = 1, NS	
3. Business organizations	18.8 (3)	16
	$X^2 = .149$, df = 1, NS	
4. Political organizations	12.5 (1)	8
	$X^2 = .224$, df = 1, NS	
5. Social, athletic, recreational organizations	32.1 (26)	81
	$X^2 = 1.868$, df = 1, NS	
6. Civic clubs	22.9 (25)	109
	$X^2 = .665$, df = 1, NS	

*Multiple response. Column on which percentage was computed.

TABLE 69 (continued)

2. Item #50: (continued)	% Migrants	N*
7. Other organizations	25.9 (7)	27
$X^2 = .050$, df = 1, NS		
8. Not a member of any organization	31.3 (5)	16
$X^2 = .040$, df = 1, NS		

3. Item #51: "Were you an officer of any organization before your U.S. studies?

YES	27.3 (41)	150
NO	24.0 (25)	104
	66	254

$X^2 = .196$, df = 1, NS

4. Item #52: Member of any professional organization or other organizations now?"

YES	22.2 (49)	221
NO	66.7 (16)	24
	65	245

$X^2 = 19.765$, df = 1, $p < .001$

TABLE 70

Migration by Occupational Status in the Philippines at the Time of U.S. Study

Occupational Status	% Migrants	N
Employed	24.6 (57)	232
Not employed	40.9 (9)	22
	66	254

$X^2 = 2.004$, df = 1, $p < .20$, NS

TABLE 71

Migration by Kind of Job in the Philippines before U.S. Study

Kind of Job	% Migrants	N
Government job	12.0 (18)	150
Not Government job	46.2 (48)	104
	66	254

$X^2 = 35.496$, df = 1, $p << .001$

NOTE: "Government job" refers to any job or position in the Philippine government, including teaching in government schools.

TABLE 72

Migration by Government Employment or Non-Government Employment Prior to U.S. Study for Those with or without Government Support

Government Supported during U.S. Study?	Government Employed Prior to U.S. Study?	% Migrants	N
Government supported	Government employed	3.7 (4)	107
	Not government employed	16.0 (4)	25
		8	132
	$X^2 = 2.414$, df = 1, $p < .10$, NS		
Not government supported	Government employed	32.6 (14)	43
	Not government employed	55.7 (44)	79
		58	122
	$X^2 = 5.085$, df = 1, $p < .05$		

TABLE 73

Migration by Government Employment Holding Constant
Salary or Earnings before U.S. Study

Salary or Earnings, annually before U.S. Study (in Pesos)	Government Employed Prior to U.S. Study	% Migrants	N
4,000 or less	Government employed	22.2 (14)	63
	Not government employed	42.2 (19)	45
		33	108
	$X^2 = 4.050$, df = 1, $p < .05$		
4,000-10,000	Government employed	4.8 (4)	84
	Not government employed	52.8 (19)	36
		23	120
	$X^2 = 34.464$, df = 1, $p < .001$		
Over 10,000	Government employed	0.0 (0)	3
	Not government employed	50.0 (1)	2
		1	5
	Fisher's Exact Test = 0.40 NS		
	Total		233*

*One additional case was self-employed at the time of U.S. study, thus explaining the discrepancy from 232 persons who reported employment prior to U.S. study.

TABLE 74

Migration by Employer Prior to U.S. Study
Holding Constant COS Score

COS Score	Employer	% Migrants	N
Low COS	Philippine government	19.7 (13)	66
	Not Philippine government	60.4 (32)	53
		45	119

$X^2 = 18.992$, df = 1, $p < .001$

High COS	Philippine government	6.0 (5)	84
	Not Philippine government	31.0 (16)	51
		21	135

$X^2 = 13.735$, df = 1, $p < .001$

TABLE 75

Migration by Employer Prior to U.S. Study
Holding Constant Score on the AS

AS Score	Employer Prior to U.S. Study	% Migrants	N
Low AS	Government employed	23.4 (11)	47
	Not government employed	57.7 (30)	52
		41	99

$X^2 = 10.590$, df = 1, $p < .01$

High AS	Government employed	6.8 (7)	103
	Not government employed	34.6 (18)	52
		25	155

$X^2 = 17.765$, df = 1, $p < .001$

TABLE 76

Migration by Government Employment Prior to U.S. Study Holding Age Constant

Date of Birth	Employer before U.S. Study	% Migrants	N
Born after 1930	Government employed	26.2 (17)	65
	Not government employed	51.8 (44)	85
		61	150
		$X^2 = 8.979$, df = 1, $p < .01$	
Born in or before 1930	Government employed	1.2 (1)	82
	Not government employed	18.8 (3)	16
		4	98
		$X^2 = 6.508$, df = 1, $p < .02$	

Missing answer (6)

TABLE 77

Migration by Kind of Job Desired after U.S. Study

Job Desired after U.S. Study	% Migrants	N
Teaching and related work	35.0 (21)	60
	$X^2 = 2.734$, df = 1, $p < .10$, NS	
Research and development	29.7 (22)	74
	$X^2 = .511$, df = 1, NS	
Professional practice on one's own	34.7 (17)	49
	$X^2 = 1.866$, df = 1, NS	
Managerial, executive or supervisory job	11.3 (8)	71
	$X^2 = 10.060$, df = 1, $p < .001$	

NOTE: Multiple response explains why total percent exceeds 100.0

TABLE 78

Proportion of Migrants Spending More than 50 Percent of their Present Working Time in the Specified Job

Job That Takes More than 50 Percent of Present Working Time	% Migrants	N*
Research and development	29.8 (14)	47
Teaching and related work	25.5 (13)	51
Managerial, executive, supervisory job	9.4 (8)	85
Self-employed or professional practice	0.0 (0)	5
Other jobs not classified elsewhere	52.6 (20)	38
Not one job	33.3 (3)	9
	58	235

$X^2 = 20.308$, df = 5, $p < .01$

Missing answer (19)

*N on which percentage was computed.

TABLE 79

Comparison of Migrants and Non-Migrants by Salary or Earnings Prior to U.S. Study

Annual Salary before U.S. Study (in pesos)	Migrants N = 57	Non-Migrants N = 176
4,000 or less	57.9 (33)	42.6 (75)
Over 4,000-10,000	40.4 (23)	55.1 (97)
Over 10,000	1.8 (1)	2.3 (4)
	100.0	100.0

$X^2 = 4.044$, df = 2, NS

Missing answer (21)

TABLE 80

Percentage Distribution of
Present Salary or Earnings
Annually for Migrants

Annual Salary (in dollars)	Percent N = 56
2,000 or less	none
Over 2,000- 4,000	none
Over 4,000- 6,000	8.9 (5)
Over 6,000- 8,000	30.4 (17)
Over 8,000-10,000	28.6 (16)
Over 10,000-20,000	30.4 (17)
Over 20,000-30,000	1.8 (1)
	100.0

Median salary range: 6,000-10,000
Missing answer (10)

TABLE 81

Percentage Distribution of Present Salary or
Earnings Annually for Non-Migrants

Salary or Earnings Annually in Pesos	Percent N = 179
2,000 or less	.6 (1)
Over 2,000- 4,000	11.2 (20)
Over 4,000- 6,000	24.6 (44)
Over 6,000- 8,000	22.9 (41)
Over 8,000-10,000	10.6 (19)
Over 10,000-20,000	19.6 (34)
Over 20,000-30,000	6.7 (12)
Over 30,000	4.5 (8)
	100.0

Median salary range: 6,000-8,000
Missing answer (9)

TABLE 82

Migration by Socioeconomic Background

Indicators of Socioeconomic Background	% Migrants	N
1. Mother's highest educational attainment		
No schooling to some elementary education	21.0 (13)	62
Elementary graduate to some high school	23.2 (16)	69
High school graduate to some college	30.0 (18)	60
College graduate - above	30.5 (18)	59
	65	250

$X^2 = 2.221$, df = 3, NS

Missing answer (4)

2. Father's highest educational attainment		
No schooling to some elementary education	18.2 (6)	33
Elementary graduate to some high school	15.6 (7)	45
High school graduate to some college	32.2 (19)	59
College graduate - above	29.2 (33)	113
	65	250

$X^2 = 5.382$, df = 3, NS

Missing answer (4)

3. Father's occupation		
Manual workers	24.0 (12)	50
Other non-manual workers	20.0 (8)	40
Clerical and related office workers	16.7 (8)	48
Professional and technical workers	34.2 (26)	76
Managerial and executive workers, proprietors and officials	32.4 (12)	37
	66	251

$X^2 = 6.425$, df = 4, NS

Missing answer (3)

TABLE 83

Migration by Vested Interests in the Philippines

Vested Interests in the Philippines	% Migrants	N*
1. Business interests	32.4 (11)	34
	X^2 = .489, df = 1, NS	
2. Professional venture	11.1 (1)	9
	X^2 = .421, df = 1, NS	
3. Land or real estate	23.6 (46)	195
	X^2 = 1.995, df = 1, NS	
4. Other forms of property	0.0 (0)	2
	X^2 = .001, df = 1, NS	
5. No property	33.3 (16)	48
	X^2 = 1.224, df = 1, NS	

*Multiple response.

TABLE 84

Migration by Family Ties in the Philippines during U.S. Study

Indicators	% Migrants	N
1. Marital status at the time of U.S. study		
Single	35.4 (45)	127
Married	15.9 (20)	126
	65	253

$X^2 = 11.671$, df = 1, $p < .001$

Missing answer (1)

2. Migration by marital status at the time of U.S. study and location of family during U.S. study		
Single	35.4 (45)	127
Married, family left in the Philippines	2.5 (2)	81
Married, with some members of family in U.S.A.	0.0 (0)	5
Married with entire family in U.S.A.	50.0 (17)	34
Married, location of family not indicated	20.0 (1)	5
Widow-widower	0.0 (0)	1
	65	253

$X^2 = 41.876$, df = 5, $p < .001$

Missing answer (1)

3. Citizenship of spouse*		
Filipino	16.0 (26)	163
U.S.	100.0 (18)	18
Other nationality	66.7 (4)	6
	48	187

$X^2 = 65.478$, df = 2, $p < .001$

*Refers to subjects who are presently married.

4. Presence of relatives in the U.S.A.?		
YES	27.7 (28)	101
NONE	25.2 (38)	151
	66	252

$X^2 = .093$, df = 1, NS

TABLE 84 (continued)

5. Expressed obligation to assist the following specified members of their family in normal times:*	% Migrants	N
Parents	28.7 (54)	189
	$X^2 = 2.997$, df = 2, NS	
Children (sons/daughters)	14.8 (21)	142
	$X^2 = 19.687$, df = 1, $p < .001$	
Grandparents	13.8 (4)	29
	$X^2 = 1.864$, df = 1, NS	
Aunts/uncles	18.2 (6)	33
	$X^2 = .779$, df = 1, NS	
Nephews/nieces	21.7 (15)	69
	$X^2 = .610$, df = 1, NS	
Cousins	14.3 (4)	28
	$X^2 = 1.607$, df = 1, NS	
Siblings (brothers/sisters)	24.3 (18)	74
	$X^2 = .052$, df = 1, NS	
Other relatives	24.1 (7)	29
	$X^2 = .000$, df = 1, NS	
None	66.7 (4)	6
	$X^2 = 3.343$, df = 1, NS	

*Multiple response explains why percent exceeds 100.0.

TABLE 85

Migration by Marital Status at the Time of U.S. Study and Date of Birth

Date of Birth	Marital Status	% Migrants	N
Born after 1930	Single	40.6 (41)	101
	Married	39.6 (19)	48
		60	149
	$X^2 = .003$, df = 1, NS		
Born in or before 1930	Single	13.6 (3)	22
	Married	1.3 (1)	76
		4	98
	$X^2 = 3.842$, df = 1, $p < .05$		

Missing answer (1)

TABLE 86

Migration by Citizenship of Spouse with Sex Held Constant*

Sex	Citizenship of Spouse	% Migrants	N**
Male	Filipino	9.1 (10)	110
	Foreigner	71.4 (5)	7
Female	Filipino	30.2 (16)	53
	Foreigner	100.0 (17)	17

*This is a reorganization of Table 41.

**N on which percentage was computed.

TABLE 87

Migration of Married Persons* According to Number of Children

Number of Children	% Migrants	N
None	52.0 (13)	25
2 or less	43.2 (32)	74
3 - 5	3.4 (2)	59
6 - 8	0.0 (0)	18
Over 8	0.0 (0)	7
	47	183

$X^2 = 45.028$, df = 4, $p < .001$

*Refers to the married persons in the study now, not before they left for U.S. study.

TABLE 88

Proportion of Migrants Indicating the Degree of Importance of the Specified Motive for U.S. Study: "To improve chances of getting a good job in the U.S.A."

Motive for U.S. Study: "To improve chances of getting a good job in the U.S.A."	% Migrants	N
Very important	73.1 (19)	26
Important	48.3 (14)	29
Somewhat important	34.5 (10)	29
Not important	10.8 (14)	130
Not mentioned	22.5 (9)	40
	66	254

$X^2 = 54.463$, df = 4, $p < .001$

TABLE 89

Proportion of Migrants Indicating the Degree of Importance of the Specified Motive for U.S. Study: "To gain advanced training in my major field."

Motive for U.S. Study: "To gain advanced training in my major field."	% Migrants	N
Very important	23.6 (53)	225
Important	39.1 (9)	23
Somewhat important	66.7 (2)	3
Not mentioned	66.7 (2)	3
	66	254

$X^2 = 7.920$, df = 3, $p < .05$

TABLE 90

Proportion of Migrants Indicating the Degree of Importance of the Specified Motive: "To improve chances of getting a good job in the Philippines"

"To improve chances of getting a good job in the Philippines."	% Migrants	N
Very important	29.9 (18)	67
Important	20.8 (25)	120
Somewhat important	34.5 (10)	29
Not important	50.0 (7)	14
Not mentioned	25.0 (6)	24
	66	254

$X^2 = 6.982$, df = 4, NS

TABLE 91

Comparison of Migrants and Non-Migrants on the Basis of What They Experienced as Sources of Frustration of Professionals in the Philippines

Item #56: "What in your own experience are the sources of frustration of individuals in your profession in the Philippines?"*	Migrants N = 66	Non-Migrants N = 188	X^2 and Significance
1. Monetary or Economic			
a. Poor pay & material rewards	40.9	36.7	.210, df = 1, NS
b. Poor working conditions - refers to physical resources	13.6	16.0	.063, df = 1, NS
c. Overall limited absorptive capacity of Philippine economy for trained skills	28.8	12.8	7.814, df = 1, $p < .01$
2. Non-Monetary			
a. Poor employment policies & management - refer to non-financial incentives like recognition of merit	9.1	20.7	3.786, df = 1, $p < .10$, NS
b. Poor overall professional milieu, e.g., non-appreciation of the profession	36.4	35.1	.001, df = 1, NS
c. Government inefficiency & abuse of authority by public officials	21.2	28.7	1.048, df = 1, NS
d. Other non-monetary concerns	4.5	7.4	.275, df = 1, NS
3. Nothing	1.5	1.6	.280, df = 1, NS

*Multiple response explains why total percentage exceeds 100.0.

TABLE 92

Proportion of Migrants Checking the Specified Means of Advancement in the Philippines

Item #58: "What have you observed are the surest ways of getting ahead in the Philippines?"*	% Migrants	N	X^2 and Significance
1. Ability and hard work	9.6 (10)	104	23.114, df = 1, p < .001
2. Education	17.3 (13)	75	3.527, df = 1, NS
3. To belong to a rich family	29.5 (18)	61	.30, df = 1, NS
4. Right connections in government & industry	23.7 (41)	173	1.123, df = 1, NS
5. Others, e.g., combination of all the above	0.0 (0)	5	.67, df = 1, NS

*Multiple response.

TABLE 93

Percentage of Migrants Checking the Specified Reason for Migrating

Reasons for Migrating*	Percent N = 66
1. Dissatisfaction with Philippine conditions	57.6
2. U.S. attractions in terms of jobs, professional opportunities, material comforts, etc.	78.8
3. Purely personal reasons, like preference for the American way of life, climate, etc.	27.3
4. Unique personal circumstances like marriage to a U.S. citizen or other national, etc.	47.0
5. Other reasons not elsewhere classified	4.5

*Multiple response explains why total percent exceeds 100.0.

TABLE 94

Percentage of Non-Migrants Checking the Specified Reasons for Returning to the Philippines

Reasons for Returning to the Philippines*	Percent N = 188
1. Contract to return to a job	66.0
2. Family considerations and similar personal reasons	66.0
3. Desire to serve country and similar patriotic reasons	59.9
4. Visa problems in U.S. or other push factors from the U.S.	13.3
5. Other reasons not elsewhere classified	7.4

*Multiple response explains why total percent exceeds 100.0.

TABLE 95

Proportion of Migrants Indicating the Factor They Would Give Heaviest Weight to Deciding Whether to Migrate or Not

Specified Factor:	% Migrants	N	X^2 and Significance
1. Factors Favoring the Philippines			
a. Challenge to serve country and contribute to its development	13.6 (6)	44	3.478, df=1, NS, $p < .10$
b. Family considerations and family obligations in the Philippines	31.8 (27)	85	1.790, df=1, NS
c. Professional opportunities and greater professional challenge in the Philippines	7.1 (2)	28	4.759, df=1, $p < .05$
d. Other reasons - lower cost of living in the Philippines, availability of household help and the like	12.2 (6)	49	5.106, df=1, $p < .05$
2. Factors Favoring the U.S.A.			
a. Economic opportunities and advantages in the U.S.A.	22.4 (26)	116	1.094, df=1, NS
b. Professional opportunities in U.S.	31.7 (19)	60	.960, df=1, NS
c. Purely personal reasons like preference for U.S. way of life	26.7 (4)	15	.058, df=1, NS
d. Other reasons - marriage to U.S. citizen	45.2 (14)	31	5.663, df=1, $p < .02$

TABLE 96

Comparison of Migrants and Non-Migrants in Terms of What They Consider Important in the Choice of a Job

Item #29: "Of course we all want these things, but which would influence you most in the choice of a job."*	Migrants N = 66	Non-Migrants N = 188	X^2 and Significance
1. High salary	81.8	80.3	.007, df = 1, NS
2. A challenging job	86.4	88.8	.097, df = 1, NS
3. Congenial co-workers	62.1	60.6	.004, df = 1, NS
4. Opportunity to rise on merit	74.2	82.4	1.593, df = 1, NS
5. Modern working conditions	63.6	53.7	1.569, df = 1, NS
6. Economic security for myself and family	77.3	81.9	.410, df = 1, NS
7. Opportunity to serve and be useful to society	57.6	68.1	1.941, df = 1, NS
8. job that gives prestige and status	47.0	48.4	.003, df = 1, NS
9. Others	1.5	3.7	.224, df = 1, NS

*The subjects were instructed to rank the specified factors according to their importance to each respondent. The ranking of the responses to this question was, however, disregarded so that only the proportion of subjects in each group mentioning the specified factor was calculated.

Multiple response explains why total percent exceeds 100.0.

TABLE 97

Comparison of Migrants and Non-Migrants in Terms of What They Consider Important Goals and Values in Life

Item #66: "Generally speaking each of us feels certain things are quite important. What do you personally consider important in life?"*	Migrants N = 66	Non-Migrants N = 188	X^2 and Significance
1. Concrete material possessions like money, house, material comforts and the like	16.7	11.7	.671, df = 1, NS
2. Other material concerns, vaguely referred to as economic security for self and family	21.2	34.0	3.200, df = 1, NS
3. Family welfare, e.g., good education and reputation for children and family	54.5	39.9	3.680, df = 1, NS
4. Service to country and people	18.2	22.9	.387, df = 1, NS
5. Purely personal nonmaterial concerns, e.g., self-actualization, spiritual well-being	77.3	67.6	1.761, df = 1, NS
6. Concern for sociocultural values, e.g., peace, universal love, honor, truth, etc.	24.2	28.7	.292, df = 1, NS
7. Other nonmaterial concerns -- God, religion, etc. not classified elsewhere	13.6	14.9	.002, df = 1, NS

*Multiple response explains why total percent exceeds 100.0.

TABLE 98

Percentage Distribution of Migrants and Non-Migrants
According to Place of Birth
in the Philippines

Place of Birth	Migrants N = 64	Non-Migrants N = 184
Metropolitan Manila	31.3	31.5
Luzon city	7.8	7.1
Luzon province	46.9	46.2
Visayan city	4.7	3.3
Visayan province	6.2	9.8
Mindanao city	3.1	1.1
Other islands	0.0	0.5
Total	100.0	100.0

$X^2 = 2.895$, df = 7, NS

TABLE 99

Percentage Distribution of Migrants and Non-Migrants
According to Place of Longest Residence
in the Philippines

Place of Longest Residence	Migrants N = 66	Non-Migrants N - 188
Metropolitan Manila	51.5	54.8
Luzon city	4.5	4.3
Luzon province	27.3	28.3
Visayan city	7.6	4.3
Visayan province	3.0	5.9
Mindanao city	3.0	1.1
Mindanao province	1.5	0.5
Others	1.5	0.5
Total	100.0	100.0

$X^2 = 4.276$, df = 7, NS

TABLE 100

Percentage Distribution of Migrants According to Location of Present Job

Geographic Location	Percent N = 58
1. Eastern seaboard & Northeastern states (New York, Massachusetts, Washington, D.C., Pennsylvania, etc.)	32.7 (19)
2. South Central states & North Central states (Illinois, Michigan, Ohio, Iowa, Indiana, Texas, Tennessee, etc.)	46.6 (27)
3. Western states including Hawaii (Washington, Oregon, California, etc.)	20.6 (12)
	100.0

Unemployed (8)

TABLE 101

Percentage Distribution of Non-Migrants According to Location of Present Job

Geographic Location	Percent N = 179
Metropolitan Manila	78.8 (141)
Luzon city	.6 (1)
Luzon province	12.8 (23)
Visayan city	3.4 (6)
Visayan province	2.2 (4)
Mindanao city	1.7 (3)
Mindanao province	.6 (1)
	100.0 (179)

Missing answer (9)
No answer - 3
Not employed - 6

TABLE 102

Percentage Distribution of Migrants and Non-Migrants According to Present Employer

Present Employer	Migrants N = 55	Non-Migrants N = 178
Government	38.2	65.7
Private firms	60.0	30.9
Self-employed	0.0	1.1
Cannot be ascertained	1.8	1.7
	100.0	100.0

$X^2 = 17.123$, df = 4, $p < .01$

Missing answer (21)
Not employed - 14 (8 migrants, 6 non-migrants)
No answer - 7

NOTE: For migrants "government" employment refers to State or Federal government, U.S.A.; for non-migrants "government" means Philippine government.

TABLE 103

Migration by Marital Status at the Time of U.S. Study with Sex Held Constant

Sex	Marital Status	% Migrants	N
Male	Single	27.3 (12)	44
	Married	9.7 (9)	93
		21	137

$X^2 = 5.833$, df = 1, $p < .02$

Female	Single	39.8 (33)	83
	Married	33.3 (11)	33
		44	116

$X^2 = .186$, df = 1, NS

TABLE 104

Comparison of the Migrants and Non-Migrants by Sex and Present Marital Status

Marital Status	Sex	Migrants	Non-Migrants	N
Single	Male	6	14	20
	Female	12	34	46
		18	48	66
		$X^2 = .00$, df = 1, NS		
Married	Male	15	102	117
	Female	33	38	71
		48	140	188
		$X^2 = 24.587$, df = 1, $p < .001$		

TABLE 105

The Migrants According to Type of U.S. Visa Held at Present

Type of Visa	Percent N = 57
Permanent resident or immigrant	70.2 (40)
Student visa	10.5 (6)
J-1 or exchange visitor	14.0 (8)
Others, e.g., dependent	5.3 (3)
	100.0

U.S. citizen - 3
Other citizenship - 1
No answer - 5

APPENDIX F

Notes on the Validity and Reliability of the Anchorage Scale and Comparative Opportunity Scale

APPENDIX F

RELIABILITY AND VALIDITY OF THE ANCHORAGE SCALE AND COMPARATIVE OPPORTUNITY SCALE

The reliability of the Anchorage Scale and Comparative Opportunity Scale was checked during the pretests of these scales by using the criterion of internal consistency (see Chapter III). A further check on the reliability of both scales was made by computing the coefficient alpha of the scores of the subjects of this study on each scale using the formula.[1]

$$r\alpha = \frac{k}{k - 1} \left(1 - \frac{\Sigma Vi}{V}\right)$$

Where k = number of items on the scale;
ΣVi = sum of the variance of the items;
and V = variance of the total scores on the scale.

The value of the coefficient alpha of the scores on the Anchorage Scale is .70 and that of the Comparative Opportunity Scale is .74. These values are low for the purpose of using the scales for research on individuals but can be considered sufficient for research on groups as done in this study. The low values of the coefficient alpha obtained for each scale may be due to the fact that there are only eleven items composing each scale; increasing the number of items would result in a higher coefficient.

Checks on the validity of the Anchorage Scale and Comparative Opportunity Scale were made by correlating the AS scores of the migrants with their responses to the criterion question: "Do you plan to return to the Philippines at some future date?" Migrants with "high AS" were expected to respond "Yes" to this question. The results supported this prediction (Table 8, Phi = .314, $p < .001$). Also, the AS scores of the non-migrants were correlated with their responses of the criterion question: "Have you, at any point in your life ever considered emigrating?" It was expected that non-migrants with "high AS" would tend to respond "No" to this question. The results give strong support to the prediction (Table 7, Phi = .462, $p < .001$). The same validity checks were followed for the Comparative Opportunity Scale. Non-migrants with "high COS" tended to respond "No" to the question on whether they had planned or

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[1] L. Cronbach, "Coefficient Alpha and Internal Structure of Tests," Principles of Educational Measurement edited by W. Mehrens & R. Ebel. Illinois: Rand McNally, 1967 p. 134.

are planning to emigrate. However, the responses of the migrants to the question on whether they plan to return to the Philippines resulted in no significant relationship with their COS scores. But the response of the students to the question on whether they plan to return tended to support the prediction that "high AS" is positively related to return; "high COS" is also positively related to return (Table 10).